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NEWS	12	JUN	25	reclassification data
		****	0.0	
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NEWS	18	JUL	28	EPFULL enhanced with additional legal status
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NEWS		JUL		STN Viewer performance improved
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NEWS		AUG		CA/CAplus, CASREACT, and IFI and USPAT databases
MEMO	25	AUG	23	enhanced for more flexible patent number searching
NEWS	20	AUG	27	CAS definition of basic patents expanded to ensure
MEMO	20	AUG	21	comprehensive access to substance and sequence
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AN
     2005:74133 CAPLUS
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ED
      Entered STN: 28 Jan 2005
     Modified polyvinyl acetal binder resin for coating paste with good
     applicability
IN
     Ichitani, Motokuni; Ii, Daizo; Ochitani, Yukio; Takahashi, Hidevuki;
     Sakashita, Katsuaki
     Sekisui Chemical Co., Ltd., Japan
PA
SO PCT Int. Appl., 39 pp.
     CODEN: PIXXD2
DT Patent
LA
     Japanese
IC
     ICM C08F008-48
      ICS C09D129-14
     37-3 (Plastics Manufacture and Processing)
      Section cross-reference(s): 38, 74, 76
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JP 2005268055 A 20050929 JP 2004-79082

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JP 2005298792 A 20051027 JP 2004-117062

JP 4146823 B2 20080910

EP 1637546 A1 20060322 EP 2004-746596
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CN 1809598 A 20060726 CN 2004-80017415 20040628 JP 2005298793 A 20051027 JP 2004-233469 20040810

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20040628

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CLASS
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US 20060192180 IPCI H01B0001-12 [I,A]
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NCL 252/500.000

ECLA C08F008/28+216/06

- A modified polyvinyl acetal with excellent dispersibility for inorg. AB powders is useful for a binder resin for coating pastes, a conductive paste, a ceramic paste or a glass paste for use in, e.g., display panel or semiconductor device fabrication, etc. The modified polyvinyl acetal comprises a vinyl ester unit, a vinyl alc. unit, an α-olefin unit and an acetal unit. Thus, acetalizing a saponified poly(vinyl alc.) having ethylene unit content 10 mol% and saponification degree 88 mol% with Bu
- aldehvde gave a modified polyvinyl acetal resin which was kneaded with 2020 SS (Ni powder) and α -terpineol to give a conducting paste.

- ST elec conducting paste manuf binder modified vinyl acetal resin
- ΤТ Aluminoborosilicate glasses

RL: MOA (Modifier or additive use); USES (Uses)

(lead aluminoborosilicate, powder; manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility)

Electrically conductive pastes Semiconductor device fabrication

(manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility)

Polyvinyl acetals

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation): USES (Uses)

(paste containing S-Lec BM-S; manufacture of modified polyvinyl acetal

binder

resin for coating paste with good dispersibility)

7440-02-0, 2020SS, uses

RL: MOA (Modifier or additive use); USES (Uses)

(2020SS, conductive powder; manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility)

12047-27-7, BT 03, uses RL: MOA (Modifier or additive use); USES (Uses)

(ceramic powder; manufacture of modified polyvinyl acetal binder resin for

coating paste with good dispersibility)

TOTAL

24937-78-8DP, EVA, saponified, acetal derivs.

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Konica Corp; JP 2002283699 A 2002 CAPLUS
- (2) Kurarav Co Ltd; JP 63-79741 A 1988 CAPLUS (3) Kurarav Co Ltd; JP 63-79752 A 1988 CAPLUS
- (4) Kuraray Co Ltd; EP 1384731 A1 2004 CAPLUS
- (5) Kuraray Co Ltd; US 20040024137 A1 2004
- (6) Kuraray Co Ltd; JP 200468013 A 2004

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CN Nickel (CA INDEX NAME)

OTHER NAMES: CN 2020SS

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         (**Enter CHEMLIST File for up-to-date regulatory information)
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

362919 REFERENCES IN FILE CA (1907 TO DATE)
17562 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
363442 REFERENCES IN FILE CAPUS (1907 TO DATE)

```
L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
    12047-27-7 REGISTRY
RN
ED
    Entered STN: 16 Nov 1984
    Barium titanium oxide (BaTiO3) (CA INDEX NAME)
CN
OTHER CA INDEX NAMES:
CN
    Barium titanate(IV) (BaTiO3) (7CI)
OTHER NAMES:
CN
     56220N01
CN
    Barium metatitanate
CN
   Barium metatitanate (BaTiO3)
CN
    Barium titanate
CN
    Barium titanate (BaTiO3)
CN
    Barium titanium oxide
CN
    Barium titanium trioxide
CN
    BT 01
CN
    BT 02
    BT 03
CN
CN
     BT 04
CN
     BT 04A
CN
     BT 05
CN
     BT 05 (filler)
CN
     BT 07
CN
     BT 10
CN
     BT 10 (titanate)
CN
     BT 100M
     BT 100P
CN
    BT 100PR
CN
    BT 100T
CN
    BT 16
CN
    BT 201
CN
    BT 203
    BT 204
CN
    BT 206
CN
CN
    BT 303
CN
    BT 325
CN
    BT 325 (titanate)
CN
    BT 335
CN
    BT 5100
CN
    BT 8
    BT 8 (oxide)
CN
CN
    BT-HD 9DX
CN
    BT-HP 100
    BT-HP 8KB2
CN
CN
    BT-HP 8YF
    BT-HP 9DX
CN
CN
    BT-SA
CN
    BTO 30
CN
     BTZ 09
CN
     CFPI
CN
     HBT 3
     HPB
CN
     HPB (titanate)
CN
     HPB 1000
CN
     HPBT 1
CN
     K-Plus 16
     Kyorix BT-HD 9DX
CN
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     DISPLAY
AR
     12642-89-6
DR
     859505-07-0, 928048-64-0, 892125-11-0, 942045-70-7, 1028693-40-4,
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12656-53-0, 7787-45-3, 70699-63-7, 52869-94-0, 160462-52-2, 203796-96-7,
     208713-64-8, 225239-81-6, 229640-62-4, 237755-05-4, 358369-13-8,
    412932-53-7, 554402-75-4, 683228-79-7
    Ba 03 Ti
   COM, MAN
    STN Files:
                 AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS,
       CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE,
       IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, RTECS*,
      SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, USPATOLD
        (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
           25798 REFERENCES IN FILE CA (1907 TO DATE)
            948 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           25820 REFERENCES IN FILE CAPLUS (1907 TO DATE)
               1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
    ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
     24937-78-8 REGISTRY
    Entered STN: 16 Nov 1984
    Acetic acid ethenyl ester, polymer with ethene (CA INDEX NAME)
OTHER NAMES:
    1005VN3
    1010VN3
    1020VN5
    10457-101C
    175HY
    1830H
    1900W
    204CS95
    220ET
    3043H
    3130SB
    3135F
   3175LGZ
    334N
    33G1A
    3507C
    3F10
    400HO
    40L03
    40W
    4110F
    510A
    525BP
    547D
    54C
```

ME

LC

L4

ED CN

CN CN

CN

CN

CN

CN

CN

CN

CN

CN

CN

CN

CN

CN

CN CN 630F CN 7140F CN 7350M CN 7B54A CN 83PLD CN 840 CN A 2540

CI

```
CN
    A 3400L
CN
    A 400
CN
    A 400 (vinyl polymer)
CN
    A 416
CN
    A 416 (polymer)
CN
    A 443/31
CN
    A 9918
CN
    AC 400
CN
    AC 400 (vinvl polymer)
CN
    AC 400A
CN
    AC 401
CN
    AC 405
CN
    AC 405S
CN
    AC 405T
CN
    AC 410
CN
    AC 430
CM
    AC 440
    AC-P 400
CN
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     DISPLAY
     852392-82-6, 910806-10-9, 960375-56-8, 693786-68-4, 914656-27-2,
DR
     919765-14-3, 942929-03-5, 946400-84-6, 458549-50-3, 158707-29-0,
     173833-40-4, 174820-52-1, 122730-03-4, 53637-14-2, 58252-58-7, 58858-06-3,
     123757-93-7, 60529-82-0, 64296-24-8, 129291-57-2, 129496-11-3, 97445-08-4,
     103470-05-9, 103843-24-9, 51312-30-2, 141255-84-7, 111367-02-3,
     112659-44-6, 112820-85-6, 137802-65-4, 74566-07-7, 77348-35-7,
     148709-22-2, 78355-65-4, 143710-26-3, 144046-56-0, 144246-76-4,
     81406-40-8, 90249-44-8, 149779-75-9, 86904-51-0, 88024-59-3, 39457-29-9,
     116811-82-6, 117217-63-7, 117217-64-8, 117217-66-0, 117217-68-2,
     117313-46-9, 183815-97-6, 212906-07-5, 217301-38-7, 271594-73-1,
     288101-54-2, 299438-02-1, 327064-05-1, 392231-02-6, 396079-21-3,
     470462-00-1, 642471-13-4, 685866-61-9
MF
     (C4 H6 O2 . C2 H4)x
CI
    PMS, COM
PCT Polvolefin, Polvvinvl
LC
     STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS,
       CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU,
       EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, PIRA, PROMT,
       RTECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD
         (*File contains numerically searchable property data)
     Other Sources:
                    DSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
     CM
        1
     CRN 108-05-4
     CMF C4 H6 O2
AcO-CH-CH2
     CM
     CRN 74-85-1
     CMF C2 H4
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

44066 REFERENCES IN FILE CA (1907 TO DATE)

3697 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

44104 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 8.76 16.76 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -0.80

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FILE COVERS 1907 - 22 Sep 2008 VOL 149 ISS 13 FILE LAST UPDATED: 21 Sep 2008 (20080921/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s polyvinyl acetal resin# 107856 POLYVINYL

51840 ACETAL 830679 RESIN#

5 428 POLYVINYL ACETAL RESIN# (POLYVINYL(W)ACETAL(W)RESIN#)

=> d 1-10 all

L5 ANSWER 1 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:1119379 CAPLUS

ED Entered STN: 18 Sep 2008

TI The polyvinyl acetal resin and its

manufacture [machine translation]
IN Tsuji, Tsuyoshi; Yoshii, Shigeharu; Kosaka, Masanobu

PA Denki Kagaku Kogyo Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 9pp.

CODEN: JKXXAF

```
DT Patent
LA Japanese
CC 35 (Chemistry of Synthetic High Polymers)
FAN.CNT 1
    PATENT NO.
                       KIND DATE APPLICATION NO. DATE
PT JP 2008214435
                             20080918 JP 2007-51674 20070301
PRAI JP 2007-51674
                              20070301
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
 ______
[I,A]; C08F0016-06 [I,A]; C08F0016-00 [I,C*]
                FTERM 4J100/AD02P; 4J100/BA02H; 4J100/BA03H; 4J100/BA16H;
                       4J100/BC04H; 4J100/BC43H; 4J100/BC53H; 4J100/CA31;
                       4J100/DA25; 4J100/GC04; 4J100/GC29; 4J100/GC35;
                       4J100/HA43; 4J100/HA61; 4J100/HB25; 4J100/HB33;
                       4J100/HB39; 4J100/HB43; 4J100/HB44; 4J100/HB52;
                       4J100/HB58; 4J100/HC09; 4J100/HC17; 4J100/HC18;
                       4J100/HC19; 4J100/HC20; 4J100/HC27; 4J100/HC39;
                       4J100/HC71; 4J100/HE12; 4J100/JA01; 4J100/JA03
AB
    [Machine Translation of Descriptors]. The polyvinyl
     acetal resin which the volatile organic substance does not
     generate in large amount by heating etc. is provided. Are the
     polyvinyl acetal resin obtained by making the
     acetalization reaction of the poly(vinyl alc.) and the aldehyde under acid
    catalyst existence, obtain the residue by filtering the reactant of the
     acetalization reaction, add water to the those residue, and it is
     considered as slurry. Those slurry in the range of ±5 °C from
     the glass transition temperature of the polyvinyl acetal
     resin, the contents of the volatile organic substance generated when
     it heats for 1 h by 100 °C obtained from heat-treating 60-120 min.
     consider it as the polyvinyl acetal resin
    which is ≤10ppm.
L5 ANSWER 2 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2008:1071239 CAPLUS
ED Entered STN: 05 Sep 2008
ΤI
    Film and intermediate film for laminated glass composed of the same
IN Morikawa, Keisuke; Endo, Rvokei; Moriguchi, Nobuhiro
PA Kurarav Co., Ltd., Japan
SO PCT Int. Appl., 34pp.
    CODEN: PIXXD2
DT Patent
LA
   Japanese
CC
    57 (Ceramics)
FAN.CNT 1
                 KIND DATE APPLICATION NO. DATE
    PATENT NO.
                       ----
    WO 2008105380 A1 20080904 WO 2008-JP53226 20080226
        W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
            FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
            KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
            PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
            TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
            IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
```

TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,

AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

```
PRAI JP 2007-48611 A 20070228
JP 2007-48612 A 20070228
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
WO 2008105380 IPCI C03C0027-12 [I,A]; B32B0017-10 [I,A]; B32B0017-06
                        [I,C*]; B60J0001-00 [I,A]; C08J0005-18 [I,A];
                        C08K0003-10 [I,A]; C08K0003-00 [I,C*]
AB Disclosed is a film composed of at least one thermoplastic resin (A)
    selected from the group consisting of polyvinyl acetal
     resins, polyethylene-vinyl acetate copolymer resins, polyurethane
     resins, polyester resins and polyacrylic resins. This film contains fine
     particles of a copper compound (B) having an average particle diameter of not
more
     than 200 nm. Since this film is excellent in transparency, heat
     insulation, electromagnetic wave transmission and durability, it is
     suitable as an intermediate film for laminated glass.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Central Glass Co Ltd; EP 0727306 A2 1996 CAPLUS
(2) Central Glass Co Ltd; JP 08-259279 A 1996 CAPLUS
(3) Central Glass Co Ltd; US 5830568 A1 1996 CAPLUS
(4) Daicel Chemical Industries Ltd; JP 08-73653 A 1996 CAPLUS
(5) Yamamoto, R; JP 62-143306 A 1987 CAPLUS
    ANSWER 3 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
     2008:973884 CAPLUS
AN
    149:246940
DN
ED
    Entered STN: 14 Aug 2008
   Process for producing polyvinyl acetal resin
IN Sugioka, Takashi; Iwasaki, Hideharu
PA
    Kuraray Co., Ltd., Japan
so
    PCT Int. Appl., 23pp.
    CODEN: PIXXD2
    Patent
DT
LA Japanese
CC
    35-4 (Chemistry of Synthetic High Polymers)
FAN.CNT 1
    PATENT NO.
                       KIND DATE
                                           APPLICATION NO. DATE
    WO 2008096403
                         A1 20080814 WO 2007-JP51826 20070202
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
             KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
             MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
             RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             AT, DE, BG, BG, CH, CI, V. MC, NL, PL, PT, RO, SE, ST, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, MK, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRAI WO 2007-JP51826
                                20070202
CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
WO 2008096403 IPCI C08F0008-28 [I,A]; C08F0008-00 [I,C*]; C08F0016-38
                        [I,A]; C08F0016-00 [I,C*]
AB A process for producing a polyvinyl acetal
    resin through reaction of polyvinyl alc. with a carbonyl compound,
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characterized in that the content of alkali metal salts of polyvinyl alc.

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is 300 ppm or less in terms of alkali metal, and that the reaction is
    performed at 40° to 200°C in the presence of carbonate
    catalyst. Thus, there is provided an efficient process for producing a
    polyvinyl acetal resin of high quality
    strikingly reduced in the residue of impurities, such as metal salts and
    acids. Thus, polyvinyl butyral was obtained from the reaction of
    polyvinyl alc. and butyraldehyde in the presence of CO2.
    polyvinyl butyral carbon dioxide; polymn polyvinyl alc butyraldehyde
    Polymerization apparatus
       (preparation of polyvinyl acetal resin)
    Polyvinyl butyrals
    RL: IMF (Industrial manufacture); PREP (Preparation)
       (preparation of polyvinyl acetal resin)
    124-38-9, Carbon dioxide, uses
    RL: CAT (Catalyst use); USES (Uses)
        (preparation of polyvinyl acetal resin)
    915977-69-4P, Polyvinyl butyral
    RL: IMF (Industrial manufacture); PREP (Preparation)
       (preparation of polyvinyl acetal resin)
    7732-18-5, Water, uses
    RL: NUU (Other use, unclassified); USES (Uses)
       (preparation of polyvinyl acetal resin)
            THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Sekisui Chemical Co Ltd; JP 2006022160 A 2006 CAPLUS
(2) Sumitomo Chemical Co Ltd; JP 2002069125 A 2002 CAPLUS
(3) Sumitomo Chemical Co Ltd; JP 2002069127 A 2002 CAPLUS
    ANSWER 4 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    2008:830057 CAPLUS
DN
    149:139714
ED
    Entered STN: 10 Jul 2008
    Electrophotographic photoreceptor, process cartridge, and
    electrophotographic apparatus
    Tanaka, Masato; Fujii, Atsushi; Ishizuka, Yuka; Endo, Takehiko; Nonaka,
    Masaki
PA
    Canon Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 28pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
    74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                         APPLICATION NO.
                                                               DATE
                        ----
    JP 2008158003
                               20080710 JP 2006-343433
                        A
                                                                20061220
PRAI JP 2006-343433
                               20061220
CLASS
PATENT NO.
            CLASS PATENT FAMILY CLASSIFICATION CODES
JP 2008158003 IPCI G03G0005-05 [I,A]; G03G0005-06 [I,A]
                FTERM 2H068/AA13; 2H068/AA19; 2H068/AA34; 2H068/AA35;
                       2H068/BA39; 2H068/BA49; 2H068/BA53; 2H068/BB16;
                       2H068/FA27
```

тт

IT

IN

```
ΔR
    Disclosed is an electrophotog, photoreceptor comprising a photosensitive
    layer on a support, wherein the photosensitive layer contains (a) Ga
    phthalocyanine crystal having strong peaks in 7.4°±0.3°
    and 28.2°±0.3, (b) a polyvinylacetal resin represented by I (X11
    = ethylene group, propylene group, etc.; R11-14 = H, alkyl, methoxy; and
    Ar11,12 = Ph group having ≥1 electron-donating group), and (c) an
    azo compound represented by II (Ar21,22 = aryl).
    electrophotog photoreceptor process cartridge polyvinyacetal resin;
    gallium phthalocvanine crystal azo compd
    Electrophotographic apparatus
    Electrophotographic photoconductors (photoreceptors)
        (Electrophotog, photoreceptor containing Ga phthalocyanine crystal,
       polyvinyl acetal resin, and azo compound)
    Azo compounds
    Polyvinvl acetals
    RL: TEM (Technical or engineered material use); USES (Uses)
       (Electrophotog. photoreceptor containing Ga phthalocyanine crystal,
       polyvinyl acetal resin, and azo compound)
    941688-46-6P 941688-49-9P 941688-53-5P
    RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
    engineered material use); PREP (Preparation); USES (Uses)
        (Electrophotog, photoreceptor containing Ga phthalocvanine crystal,
       polyvinyl acetal resin, and azo compound)
    853308-27-7P
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
        (Electrophotog. photoreceptor containing Ga phthalocyanine crystal,
       polyvinyl acetal resin, and azo compound)
    63371-84-6, Hydroxygallium phthalocyanine
    RL: PRP (Properties); TEM (Technical or engineered material use); USES
    (Uses)
       (Electrophotog. photoreceptor containing Ga phthalocyanine crystal,
       polyvinyl acetal resin, and azo compound)
    9002-89-5, Poval 1400 54120-50-2 941688-45-5 941688-48-8
    941688-52-4
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (Electrophotog. photoreceptor containing Ga phthalocyanine crystal,
       polyvinyl acetal resin, and azo compound)
    RL: TEM (Technical or engineered material use); USES (Uses)
        (Electrophotog, photoreceptor containing Ga phthalocvanine crystal,
       polyvinyl acetal resin, and azo compound)
L5
    ANSWER 5 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    2008:769897 CAPLUS
DN
    149:55302
ED
    Entered STN: 26 Jun 2008
ΤI
    Modified polyvinyl acetal resins and their
    coating, electrically conductive, and ceramic pastes
IN
    Ichitani, Motokuni
PA
    Sekisui Chemical Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 13pp.
    CODEN: JKXXAF
DT
    Patent
T.A
    Japanese
    38-3 (Plastics Fabrication and Uses)
    Section cross-reference(s): 76
FAN.CNT 1
    PATENT NO.
                       KIND
                               DATE
                                          APPLICATION NO.
                                                                  DATE
PI JP 2008143922
                              20080626
                                          JP 2006-328828
                       A
                                                                 20061205
PRAI JP 2006-328828
                               20061205
```

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CLASS
             CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 JP 2008143922 IPCI
                       C08F0008-28 [I,A]; C08F0008-00 [I,C*]; H01B0001-22
                       [I.A]; C09D0005-24 [I.A]; C09D0129-14 [I.A];
                       C09D0129-00 [I.C*]
                 FTERM 4J038/CE061; 4J038/HA066; 4J038/HA186; 4J038/HA216;
                        4J038/HA316; 4J038/HA436; 4J038/HA466; 4J038/KA06;
                        4J038/NA20; 4J038/PB09; 4J100/AA020; 4J100/AA02R;
                        4J100/AD02S; 4J100/AF15T; 4J100/AF16T; 4J100/AG02P;
                        4J100/AG03P; 4J100/AG04P; 4J100/AG06P; 4J100/AJ020;
                        4J100/AJ09Q; 4J100/AJ10Q; 4J100/AK08S; 4J100/AK20S;
                        4J100/AK32Q; 4J100/AM02Q; 4J100/AM15Q; 4J100/BA03H;
                        4J100/BA03T; 4J100/BA16H; 4J100/BA16Q; 4J100/BC43T;
                        4J100/BC59H; 4J100/CA04; 4J100/CA05; 4J100/CA31;
                        4J100/DA30; 4J100/DA32; 4J100/DA33; 4J100/HA09;
                        4J100/HA43; 4J100/HB39; 4J100/HC17; 4J100/HC18;
                        4J100/HC19; 4J100/HC20; 4J100/HE12; 4J100/JA01;
                        4J100/JA44; 4J100/JA45; 5G301/DA03; 5G301/DA05;
                        5G301/DA06; 5G301/DA10; 5G301/DA11; 5G301/DA12;
                        5G301/DA42; 5G301/DD01
```

AB The invention relates to title resins, useful for multilaver ceramic capacitors, with content of ethylene, pendant OH, and pendant CO2H, resp., 1-20, 15-40, and 0.01-10 mol% and degree of saponification and acetalization. resp., ≥80 and 40-80 mol% manufactured by acetalization of modified vinyl alc. polymers with aldehydes. Thus, a conductive paste containing a modified polyvinyl butyral manufactured from a saponified ethylene-vinyl acetate

copolymer and a saponified itaconic acid-vinvl acetate copolymer showed good screen printability.

- ST screen printability multilayer ceramic capacitor polyvinyl butyral; sapond ethylene vinyl acetate copolymer polyvinyl butyral; polyvinyl butyral sapond itaconic acid vinvl acetate copolymer Electrically conductive pastes

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

Polyvinyl butyrals

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

ΙT Aldehydes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

Ceramic capacitors

(multilayer; modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

Ceramic coatings

Coating materials

(pastes; modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

24937-78-8DP, Ethylene-vinyl acetate copolymer, saponified, acetal with butyraldehyde 43158-52-7DP, Itaconic acid-vinyl acetate copolymer, saponified, acetal with butyraldehyde

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

75-07-0, Acetaldehyde, reactions 123-72-8, Butvraldehyde RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for

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multilayer ceramic capacitors)
     ANSWER 6 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
1.5
AN
     2008:529942 CAPLUS
DN
     148:518375
ED
     Entered STN: 02 May 2008
     Acrylic thermoplastic resin compositions with good toughness and strength
     for films and composites
IN
     Tokuchi, Kazuki; Moriguchi, Nobuhiro; Kamata, Yohei; Komiva, Yukiatsu
PΑ
     Kurarav Co., Ltd., Japan
SO
     PCT Int. Appl., 68pp.
     CODEN: PIXXD2
DT
     Patent
LA
     Japanese
CC
     37-6 (Plastics Manufacture and Processing)
     Section cross-reference(s): 38
FAN.CNT 1
     PATENT NO.
                         KIND DATE
                                              APPLICATION NO.
                                                                       DATE
                         ----
PΙ
     WO 2008050738
                          A1 20080502 WO 2007-JP70597
                                                                       20071023
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
              CH CN, CO, CR, CU, CZ, DE, DR, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, II, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LE, LS, LT, LU, LY, MA, MD, ME, MG,
              MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT,
         RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, IJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
              IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
              GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
              BY, KG, KZ, MD, RU, TJ, TM
     JP 2008133452
                       A
                                20080612
                                              JP 2007-274550
                                                                       20071023
PRAI JP 2006-287745
                                20061023
                           A
     JP 2007-81872
                                 20070327
                          A
     JP 2007-90863
                           A
                                  20070330
CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
 WO 2008050738 IPCI C08L0033-10 [I,A]; C08L0033-00 [I,C*]; B32B0027-30
                         [I,A]; C08J0005-18 [I,A]; C08L0029-14 [I,A];
                         C08L0029-00 [I,C*]
 JP 2008133452
                 IPCI
                         C08L0033-10 [I.A]; C08L0033-00 [I.C*]; C08L0029-14
                         [I,A]; C08L0029-00 [I,C*]; C08J0003-20 [I,A];
                         C08J0005-18 [I,A]; C08F0008-28 [I,A]; C08F0008-00
                          [I,C*]
                  FTERM 4F070/AA25; 4F070/AA32; 4F070/AB11; 4F070/AB22;
                          4F070/AB23; 4F070/FA03; 4F070/FC06; 4F071/AA29;
                          4F071/AA33; 4F071/AA81; 4F071/AA86; 4F071/AF25Y;
                          4F071/AF30Y; 4F071/BA01; 4F071/BB05; 4F071/BC01;
                          4J002/BE06X; 4J002/BG05W; 4J100/AD02P; 4J100/AG04P;
                          4J100/CA31; 4J100/DA01; 4J100/DA25; 4J100/DA33;
                          4J100/GD11; 4J100/HA09; 4J100/HA19; 4J100/HA56;
                          4J100/HC16; 4J100/HC17; 4J100/HC18; 4J100/HC19;
                         4J100/HC20; 4J100/HE41; 4J100/HF00
   Title compns. are prepared by blending a methacrylic resin and
AB
     polyvinylacetal resin at ≥140° under shear rate ≥100
     s-1 and cooling to ≤120°, wherein at least the methacrylic
     resin constitute a continuous phase and the glass transition temperature
     ascribed to the methacrylic resin of the acrylic thermoplastic resin
     compns. is on between the glass transition temperature of the methacrylic resin
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alone and the glass transition temperature of the polyvinylacetal resin alone.

Thus, 90 parts a Me methacrylate-Me acrylate copolymer with glass transition temperature 121° and 10 parts a polyvinyl acetal resin obtained from polyvinyl alc. and butylaldehyde with glass transition temperature 78° were kneaded at 220° under maximum shear rate 300/s, extruded, and injection-molded to give a test piece, showing flexural modulus 3000 MPa, flexural elongation at yield 8.3%, flexural toughness 50 J, tensile modulus 2800 MPa, tensile elongation at break 25%, tensile toughness 50 J, surface hardness 88, haze 1.0%, and good moisture heat resistance and whitening resistance. acrylic thermoplastic resin compn toughness strength film composite; methyl methacrylate methyl acrylate copolymer polyvinyl btanal blend Polymer blends RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (acrylic polymer-polyvinyl acetal blends; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Extrusion of plastics and rubbers Laminated materials Laminated plastic films Plastic films (acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Molded plastics, properties RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Polyvinyl acetals RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (blend with acrylic polymer; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Acrylic polymers, preparation RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (blend with polyvinyl acetal; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Molding of plastics and rubbers (injection; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Metals, uses Oxides (inorganic), uses RL: TEM (Technical or engineered material use); USES (Uses) (laminate with acrylic resin composition film; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Plastics, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermoplastics; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) Plastics, uses RL: TEM (Technical or engineered material use); USES (Uses) (thermosetting, laminate with acrylic resin composition articles; acrylic thermoplastic resin compns. with good toughness and strength for films and composites) 915977-69-4 1021686-60-1 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic thermoplastic resin compns. with good toughness and strength

9002-89-5D, Polyvinyl alcohol, reaction products with aldehydes

for films and composites)

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(blend with acrylic polymer; acrylic thermoplastic resin compns. with good toughness and strength for films and composites)

- 9011-87-4P, Methyl acrylate-methyl methacrylate copolymer
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
 - (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (blend with polyvinyl acetal; acrylic thermoplastic resin compns. with good toughness and strength for films and composites)
- IT 7429-90-5, Aluminum, uses
- RL: TEM (Technical or engineered material use); USES (Uses)
- (laminate with acrylic resin composition film; acrylic thermoplastic resin compns. with good toughness and strength for films and composites)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) E I Du Pont de Nemours & Co; EP 1565526 A1 2006 CAPLUS
- (2) E I Du Pont de Nemours & Co; CN 1717449 A 2006 CAPLUS
 (3) E I Du Pont de Nemours & Co; US 20040147675 A1 2006 CAPLUS
- (4) E I Du Pont de Nemours & Co; US 20040147675 A1 2006 CAPLUS (4) E I Du Pont de Nemours & Co; WO 2004050759 A1 2006 CAPLUS
- (5) E I Du Pont de Nemours & Co; WO 2004030739 AI 2000 CAPLUS
- (6) E I Du Pont de Nemours & Co; JP 2006508232 A 2006
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- (8) Murata Mfg Co Ltd; JP 06-128022 A 1994 CAPLUS
- (9) Sony Corp; JP 08-197855 A 1996 CAPLUS
- L5 ANSWER 7 OF 428 CAPLUS COPYRIGHT 2008 ACS on SIN
- AN 2008:26441 CAPLUS
- DN 148:286258
- ED Entered STN: 08 Jan 2008
- TI Binder composition for copper foil adhesion sheet used in printed circuit board
- IN Sim, Hui Yong; Jung, U. Jae; Kwon, Yun Gyeong; Ahn, Heung Geun; Min, Hyeon Seong
- PA LG Chem, Ltd., S. Korea
- SO Repub. Korean Kongkae Taeho Kongbo, 17pp.
- CODEN: KRXXA7 DT Patent
- LA Korean
- CC 38-3 (Plastics Fabrication and Uses)
 - Section cross-reference(s): 76

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI KR 2007115272 PRAI KR 2006-49461 CLASS	A	20071206 20060601	KR 2006-49461	20060601	

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

KR 2007115272 IPCI C09J0163-00 [1,A]; C09J0109-02 [1,A]; C09J0109-00

AB The title binder composition comprises (by weight parts): halogen-free bisphenol-A

epoxy resin (average epoxy equivalent = 300-1,000) 100, curing agent 0.5-5, reactive or non-reactive polyvinyl acetal

resin (weight average mol. weight = 100,000-300,000) 10-30, and reactive or non-reactive butadiene acrylonitrile copolymer resin (weight average mol.

weight =

10,000-400,000) 10-40. The halogen-free bisphenol-A epoxy resin contains 0.5-4wt.5 of phosphorus, and has more than 4 functional groups. The copper foil adhesion sheet using the binder composition has the advantages of high tensile strength, high ductility, high elongation rate, high flame

retardancy, high heat resistance, and no generation of cancerogenic substances such as dioxin when abandoned.

binder compn copper foil adhesion sheet printed circuit board

Crosslinking agents

Binders Foils

TT

IT

Printed circuit boards

(binder composition for copper foil adhesion sheet used in printed circuit board)

Epoxy resins, uses

Polyvinyl acetals

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(binder composition for copper foil adhesion sheet used in printed circuit board)

7723-14-0D, Phosphorus, compds.

RL: MOA (Modifier or additive use); USES (Uses)

(binder composition for copper foil adhesion sheet used in printed circuit board)

9003-18-3, Acrylonitrile-butadiene copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(binder composition for copper foil adhesion sheet used in printed circuit board)

7440-50-8, Copper, uses

RL: TEM (Technical or engineered material use); USES (Uses) (binder composition for copper foil adhesion sheet used in printed circuit board)

ANSWER 8 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN 1.5

ΔN 2007:1420375 CAPLUS

DM 148:59769

ED Entered STN: 13 Dec 2007

Interlayer for laminated glass and laminated glass

IN Marumoto, Tadashi

PA Sekisui Chemical Co., Ltd., Japan

SO PCT Int. Appl., 20pp.

CODEN: PIXXD2 DT Patent

LA Japanese

57-1 (Ceramics) CC

FAN.CNT 1 PATENT NO.					KIND DATE		APPLICATION NO.											
PI		2007				A1	-	2007		1	WO 2					2	0070	
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,
			KM,	KN,	KΡ,	KR,	ΚZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,
			MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,
			RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	sv,	SY,	ΤJ,	TM,	TN,	TR,
			TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW					
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
			IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
			ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG,	BW,
			GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
			BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM									
PRAI		2006	-151	096		A		2006	0531									
PAT	ENT	NO.		CLA	SS :	PATE	NT F	AMIL	Y CL	ASSI	FICA	TION	COD	ES				

WO 2007142095 IPCI C03C0027-12 [I,A]; B32B0017-10 [I,A]; B32B0017-06

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[I,C*]; C08J0005-18 [I,A]; C08K0005-103 [I,A];
                       C08K0005-00 [I,C*]; C08L0029-14 [I,A]; C08L0029-00
                       [I,C*]
                 TPCR
                       C03C0027-12 [I,C]; C03C0027-12 [I,A]; B32B0017-06
                       [I,C]; B32B0017-10 [I,A]; C08J0005-18 [I,C];
                       C08J0005-18 [I,A]; C08K0005-00 [I,C]; C08K0005-103
                        [I,A]; C08L0029-00 [I,C]; C08L0029-14 [I,A]
                 ECLA
                       C03C027/10; C03C017/32C
OS
    MARPAT 148:59769
AB
    Disclosed is an interlayer for laminated glasses, which contains a
     polyvinyl acetal resin. This interlayer can
     be easily adhered to a glass and enables to form a laminated glass having
     excellent transparency. Also disclosed is a laminated glass using such an
     interlayer. Specifically disclosed is an interlayer for laminated glasses
     containing 100 weight parts of a polyvinyl acetal
     resin and 60-100 weight parts of a plasticizer, wherein 50-100% by
     weight of the plasticizer is composed of a diester compound represented by the
     formula R1C(=0)(R30)nC(=0)R2, wherein R1 and R2 independently represent an
     organic group having 5-10 C atoms; R3 represents a -CH2-CH2- group, a
     -CH2-CHMe- group, a -CH2-CH2-CH2- group or a -CH2-CH2-CH2-CH2- group; and
     n represents an integer of 4-10.
     laminated glass interlayer polyvinyl acetal diester plasticizer
IT
     Laminated class
     RL: PEP (Physical, engineering or chemical process); PRP (Properties);
     PROC (Process)
        (interlayer containing polyvinyl acetal diester plasticizer for laminated
        glass and laminated glass)
     Polyvinyl acetals
     RL: TEM (Technical or engineered material use); USES (Uses)
        (interlayer containing polyvinyl acetal diester plasticizer for laminated
        glass and laminated glass)
     94-28-0 9004-93-7 18268-70-7 150883-14-0
                                                    959851-23-1
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (interlayer containing polyvinyl acetal diester plasticizer for laminated
       glass and laminated glass)
RE.CNT 11
             THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
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(2) Kuraray Co Ltd; JP 200468013 A 2004
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(5) Kureha Chemical Industry Co Ltd; WO 2005111170 A1 2005 CAPLUS
(6) Sekisui Chemical Co Ltd; JP 2001163640 A 2001 CAPLUS
(7) Sekisui Chemical Co Ltd; EP 1657092 A1 2005 CAPLUS
(8) Sekisui Chemical Co Ltd; WO 200518969 A1 2005
(9) Sekisui Chemical Co Ltd; JP 2005206445 A 2005 CAPLUS
(10) Sekisui Chemical Co Ltd; US 20068658 A 2005
(11) Sekisui Chemical Co Ltd; CA 2532029 A 2005 CAPLUS
L5
    ANSWER 9 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
AN
     2007:1331343 CAPLUS
DN
     147:531632
ED
     Entered STN: 22 Nov 2007
     Liquid crystal panel and liquid crystal display unit
    Iida, Toshiyuki; Izaki, Akinori; Sugihara, Hisae; Ohmori, Yutaka
TN
PA
    Nitto Denko Corporation, Japan
SO
    PCT Int. Appl., 58pp.
    CODEN: PIXXD2
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LA Japanese CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

DT

Patent

Section cross-reference(s): 38, 73

PI W0 2007132618 Al 20071122 W0 2007-JP58305 20070417 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MM, MM, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RM: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MG, AG, NG, NG, MK, MK, MR, NS, NT, DT, TG, BW, BJ, CF, GG, CI, CM, GA, GN, GO, GM, ML, MR, NE, SN, TD, TG, BW,
BJ, CF, CG, CL, CH, GA, GN, GQ, GW, NL, NR, NE, SN, LD, 1G, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
JP 2007328324 A 20071220 JP 2007-103571 20070411
PRAI JP 2006-132418 A 20060511
CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
TAILUT INC. CLASS TAILUT CLASSIFICATION CODES
WO 2007132618 IPCI G02F0001-13363 [I,A]; C08F0008-28 [I,A]; C08F0008-48 [I,A]; C08F0008-00 [I,A]; G02F0001-1335 [I,A]; G02F00001-1335 [I,A]; G02F0001-1355 [I,A]; G02F0001-1355 [I,A]; G02F0001-1355 [I,A]; G02F0001-1355 [I,A]; G02F0001-1355 [I,A]; G02F0001-1
<pre>IPCR G02F0001-13 [I,C]; G02F0001-13363 [I,A]; C08F0008-00 [I,C]; C08F0008-28 [I,A]; C08F0008-48 [I,A]; G02B0005-30 [I,C]; G02B0005-30 [I,A]; G02F0001-1335 [I,A]</pre>
JP 2007328324
[I,A]; GOZF0001-13 [I,C*]; GOZB0005-30 [I,A] IPCR GOZF0001-13 [I,C]; GOZF0001-13363 [I,A]; GOZB0005-30 [I,C]; GOZB0005-30 [I,A]; GOZF0001-1335 [I,A]; GOZF0001-139 [I,A]
FTERM 2H049/BA02; 2H049/BA06; 2H049/BA42; 2H049/BB03; 2H049/BB12; 2H049/BC12; 2H049/BC22; 2H088/GA02; 2H088/HA16; 2H088/HA18; 2H088/JA10; 2H088/KA05; 2H088/KA07; 2H088/KA07; 2H088/KA07; 2H088/KA07; 2H088/KA07; 2H091/FA082; 2H091/FA082; 2H091/FA082; 2H091/FC07; 2H091/FA082; 2H091/FC07; 2H091/FC07; 2H091/FC07; 2H091/FC07; 2H091/FC07; 2H091/GA16; 2H091/GA
2H091/LA19; 2H091/LA20 AB A liquid crystal panel small in oblique-direction color shift even viewe

BA A liquid crystal panel small in oblique-direction color shift even viewed from any directions through 360°, and wide in right and left viewing angles. The liquid crystal panel comprises a liquid crystal cell, a first polarizer disposed on one side of the liquid crystal cell, a second polarizer disposed on the other side of the liquid crystal cell, and first optical compensation layer and a second compensation layer disposed between the first polarizer and the second polarizer. The first optical compensation layer is disposed between the first polarizer and the liquid crystal cell, with its lagging phase direction substantially orthogonal to the absorption axis direction of the first polarizer and its index ellipsoid showing nx > ny ≥ nz. The first optical compensation layer contains polyvinyl acetal resin, and includes a phase difference film where Re[750] is larger than Re[550]. The second optical compensation layer is disposed between the first optical compensation layer and the second polarizer, with its index ellipsoid showing nx=ny>nz.

ST liq crystal panel display polarizer LCD; polyvinyl acetal optical compensating film

IT Liquid crystal displays Optical films Polarizers

(LCD optical compensating film made from polyvinyl acetal)

Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses) (LCD optical compensating film made from polyvinyl acetal) RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE (1) Fujitsu Display Technologies Corp; US 20060012738 A1 2006 CAPLUS
- (2) Fujitsu Display Technologies Corp; JP 200630688 A 2006
- (3) Lg Chem Ltd; EP 1588211 A1 2004 CAPLUS
- (4) Lg Chem Ltd; WO 2004068225 A1 2004 CAPLUS
- (5) Lg Chem Ltd; US 20060244884 Al 2004 (6) Lg Chem Ltd; JP 2006514754 A 2004
- (7) Nitto Denko Corp; JP 200689696 A 2006
- (8) Teijin Ltd; WO 03032060 Al 2003 CAPLUS
- (9) Teijin Ltd; EP 1435541 A1 2003
- (10) Teijin Ltd; US 20040239852 A1 2003 CAPLUS
- ANSWER 10 OF 428 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2007:1278465 CAPLUS
- DN 147:503571
- ED Entered STN: 09 Nov 2007
- TI Polyvinyl acetal resin-containing
 - intermediate film for laminated glass and laminated glass
- Marumoto, Tadashi
- Sekisui Chemical Co., Ltd., Japan
- PCT Int. Appl., 23pp. CODEN: PIXXD2
- DT Patent
- LA Japanese
- CC 38-3 (Plastics Fabrication and Uses)
 - Section cross-reference(s): 57

FAN.CNT 1

	PA?	TENT :	NO.			KIN	D	DATE				ICAT				D	ATE	
ΡI	WO	2007	1258	 68		A1		2007	1108							2	0070	423
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,
			GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΜ,
			KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	MK,
			MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,
			RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
			TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW						
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
			IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,
			GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,
			BY,	KG,	KZ,	MD,	RU,	ТJ,	TM									
PRA1	I JP	2006	-120	685		A		2006	0425									
CLAS	SS																	
PA?	TENT	NO.		CLA	SS	PATE	NT E	AMIL	Y CL	ASSI	FICA'	TION	COD	ES				
WO 2007125868		68	IPC		CO3C		7-12	[I,A]; B	32B0	017-	10 [I,A]	; B3	2B00	17-0	5	
				IPC	R	cosc	0027	7-12	[I,C); C	03C0	027-	12 [I,A]	; B3	2B00	17-04	б

OS MARPAT 147:503571

[I,C]; B32B0017-10 [I,A] AB The intermediate film for laminated glasses contains a polyvinyl acetal resin. The intermediate film can be easily

bonded to a glass and enables to give a laminated glass having good transparency. Specifically, an intermediate film for laminated glasses contains 100 parts a polyvinyl acetal resin

```
and 40-75 parts plasticizer. In this intermediate film, 4-40% of the
     plasticizer is composed of an C16-20 unsatd. fatty acid alkyl ester.
    polyvinyl acetal intermediate film laminated glass
    Plastic films
    Plasticizers
        (polyvinyl acetal resin-containing
        intermediate film for laminated glass)
     Extruded plastics
     Plate glass
     RL: PEP (Physical, engineering or chemical process); TEM (Technical or
     engineered material use); PROC (Process); USES (Uses)
        (polyvinyl acetal resin-containing
        intermediate film for laminated glass)
     Polyvinyl acetals
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (polyvinyl acetal resin-containing
        intermediate film for laminated glass)
     Polyvinyl butyrals
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (polyvinyl acetal resin-containing
        intermediate film for laminated glass)
     Laminated glass
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polyvinyl acetal resin-containing
        intermediate film for laminated glass)
     Fatty acids, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (unsatd., esters, plasticizer; polyvinyl acetal
        resin-containing intermediate film for laminated glass)
     112-80-1D, Oleic acid, alkyl esters 141-24-2, Methyl ricinoleate
     18268-70-7, Tetraethylene glycol di-2-ethylhexanoate
     RL: MOA (Modifier or additive use); USES (Uses)
        (plasticizer; polyvinyl acetal resin
        -containing intermediate film for laminated glass)
     915977-69-4
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (polyvinyl acetal resin-containing
        intermediate film for laminated glass)
RE.CNT 5
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Asahi Glass Co Ltd; WO 2001042158 A1 2001
(2) Asahi Glass Co Ltd; JP 2001233643 A 2001 CAPLUS
(3) Nippon Shokubai Co Ltd; JP 10-338521 A 1998 CAPLUS
(4) Nippon Shokubai Co Ltd; JP 2000281934 A 2000 CAPLUS
(5) The Yokohama Rubber Co Ltd; JP 2005281074 A 2005 CAPLUS
=> e ichitani moto/au
             3
                   ICHITANI MASAMI/AU
                   ICHITANI MAYUMI/AU
E3
             0 --> ICHITANI MOTO/AU
E4
           51 ICHITANI MOTOKUNI/AU
E5
            1
                   ICHITANI N/AU
           12 ICHITANI NOBORU/AU
1 ICHITANI NOBUYA/AU
4 ICHITANI RIE/AU
E6
           12
E7
E8
           1 ICHITANI RUMIKO/AU
1 ICHITANI SHUJI/AU
1 ICHITANI SYUJI/AU
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E9 E10 E11

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E12
         1 ICHITANI T/AU
=> s e4
          51 "ICHITANI MOTOKUNI"/AU
1.6
=> d his
    (FILE 'HOME' ENTERED AT 10:55:14 ON 22 SEP 2008)
    FILE 'CAPLUS' ENTERED AT 10:55:43 ON 22 SEP 2008
               E US2006192180/PN
               E US20060192180/PN
L1
             1 S E3
    FILE 'REGISTRY' ENTERED AT 10:58:28 ON 22 SEP 2008
             1 S 7440-02-0/RN
L3
             1 S 12047-27-7/RN
             1 S 24937-78-8/RN
L4
    FILE 'CAPLUS' ENTERED AT 11:02:01 ON 22 SEP 2008
           428 S POLYVINYL ACETAL RESIN#
1.5
              E ICHITANI MOTO/AU
            51 S E4
L6
=> s 15 and 16
           6 L5 AND L6
=> d 1-6 all
   ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
L7
AN 2008:769897 CAPLUS
DN
    149:55302
ΕD
    Entered STN: 26 Jun 2008
    Modified polyvinyl acetal resins and their
    coating, electrically conductive, and ceramic pastes
IN Ichitani, Motokuni
PA
    Sekisui Chemical Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 13pp.
    CODEN: JKXXAF
DT
    Patent
LA
   Japanese
    38-3 (Plastics Fabrication and Uses)
    Section cross-reference(s): 76
FAN.CNT 1
    PATENT NO.
                       KIND
                               DATE
                                         APPLICATION NO. DATE
                       ----
    JP 2008143922
                        A
                              20080626
                                        JP 2006-328828
                                                                20061205
PRAI JP 2006-328828
                               20061205
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 2008143922
                IPCI
                       C08F0008-28 [I,A]; C08F0008-00 [I,C*]; H01B0001-22
                       [I,A]; C09D0005-24 [I,A]; C09D0129-14 [I,A];
                       C09D0129-00 [I,C*]
                FTERM 4J038/CE061; 4J038/HA066; 4J038/HA186; 4J038/HA216;
                       4J038/HA316; 4J038/HA436; 4J038/HA466; 4J038/KA06;
                       4J038/NA20; 4J038/PB09; 4J100/AA02Q; 4J100/AA02R;
                       4J100/AD02S; 4J100/AF15T; 4J100/AF16T; 4J100/AG02P;
                       4J100/AG03P; 4J100/AG04P; 4J100/AG06P; 4J100/AJ02Q;
                       4J100/AJ09Q; 4J100/AJ10Q; 4J100/AK08S; 4J100/AK20S;
                       4J100/AK32Q; 4J100/AM02Q; 4J100/AM15Q; 4J100/BA03H;
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4J100/BA03T; 4J100/BA16H; 4J100/BA16Q; 4J100/BC43T;

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4J100/BC59H; 4J100/CA04; 4J100/CA05; 4J100/CA31;
4J100/DA30; 4J100/DA32; 4J100/DA33; 4J100/HA09;
4J100/HA43; 4J100/HB39; 4J100/HC17; 4J100/HC18;
4J100/HC19; 4J100/HC20; 4J100/HE12; 4J100/JA01;
4J100/JA41; 4J100/JA41; 5G301/DA03; 5G301/DA05;
5G301/DA06; 5G301/DA10; 5G301/DA11; 5G301/DA12;
5G301/DA42; 5G301/DD01
```

AB The invention relates to title resins, useful for multilayer ceramic capacitors, with content of ethylene, pendant OR, and pendant COZH, resp., 1-20, 15-40, and 0.01-10 mol% and degree of saponification and acetalization, resp., ≥80 and 40-80 mol% manufactured by acetalization of modified vinyl alc. polymers with aldehydes. Thus, a conductive paste containing a modified polyvinyl butyral manufactured from a saponified ethylene-vinyl acetate

copolymer and a saponified itaconic acid-vinyl acetate copolymer showed good screen printability.

ST screen printability multilayer ceramic capacitor polyvinyl butyral; sapond ethylene vinyl acetate copolymer polyvinyl butyral; polyvinyl butyral sapond itaconic acid vinyl acetate copolymer

IT Electrically conductive pastes

(modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

IT Polyvinyl butyrals

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

T Aldehydes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for

multilayer ceramic capacitors)
Ceramic capacitors

(multilayer; modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

IT Ceramic coatings

Coating materials

(pastes; modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

II 24937-78-8DP, Ethylene-vinyl acetate copolymer, saponified, acetal with butyraldehyde 43158-52-7DP, Itaconic acid-vinyl acetate copolymer, saponified, acetal with butyraldehyde RL: IMF (Industrial manufacture); PDF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

IT 75-07-0, Acetaldehyde, reactions 123-72-8, Butyraldehyde RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

- L7 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:1089165 CAPLUS
- DN 145:442632
- ED Entered STN: 19 Oct 2006
- TI Ceramic pastes for ceramic green sheets for capacitors
- IN Ichitani, Motokuni
- PA Sekisui Chemical Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 8pp.
- CODEN: JKXXAF DT Patent
- LA Japanese
- CC 57-2 (Ceramics)

ference(s): 38, 76

Section	cross-reference(s): 38,	15
FAN.CNT 1		

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006282490 PRAI JP 2005-108519 CLASS	A	20061019 20050405	JP 2005-108519	20050405
PATENT NO. CLAS	S PATENT	FAMILY CLASS	IFICATION CODES	
JP 2006282490 IPC		5-632 [I,A]; H01G0004-12		C*]; B28B0001-30
IPCF	[I,C];		C04B0035-632 [I, [I,A]; H01G0004-	
FTEF	4G030/A 4G030/A 4G030/C 4G030/F	A32; 4G030/A A51; 4G030/A A08; 4G030/G A21; 4G052/E	A10; 4G030/AA16; A36; 4G030/AA47; A52; 4G030/BA18; A14; 4G030/GA17; A05; 4G052/DA08; H01; 5E001/AJ02	4G030/AA48; 4G030/CA07; 4G030/GA18;
AB The pastes conta			sin	ceremic nowder

- with desired acetalization degree, organic solvent and ceramic powder.
 - Preferably, the polyvinyl acetal resin has acetalization degree 40-80%.
- ceramic paste polyvinyl acetal resin green
- sheet capacitor
- Polyvinyl acetals TT
 - RL: NUU (Other use, unclassified); USES (Uses)
 - (ceramic pastes containing; ceramic pastes for ceramic green sheets for capacitors)
- IT Acetalization
 - Ceramic capacitors
 - Ceramics

(ceramic pastes for ceramic green sheets for capacitors)

- ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:101214 CAPLUS
- DN 144:193288

L7

- ED Entered STN: 03 Feb 2006
- TΙ Ceramic pastes, electrically conductive pastes and dielectric pastes
- Ichitani, Motokuni; Ochitani, Yukio IN
- Sekisui Chemical Co., Ltd., Japan PA
- SO Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- 38-3 (Plastics Fabrication and Uses)

FAN.		1			
	D 20 5		T/ TAID	D 2 TD	A DDI T

PATENT NO.		KIND DA	TE A	PPLICATION NO.	DATE
PI JP 20060279 PRAI JP 2004-213 CLASS	90		060202 J 040721	P 2004-213479	20040721
PATENT NO.	CLASS	PATENT FAM	ILY CLASSIF	ICATION CODES	
JP 2006027990	IPCI			04B0035-63 [I,0	C*]; H01B0001-22
	FTERM	4G030/GA15 5G301/DA04 5G301/DA42	; 4G030/PA2 ; 5G301/DA0 ; 5G301/DD0	6; 4G030/BA09; 2; 5G301/DA02; 5; 5G301/DA33; 1; 5G303/AA05; 1; 5G303/CA02;	5G301/DA03; 5G301/DA34; 5G303/AB20;

5G303/CA09

- OS MARPAT 144:193288
 AB The title pastes contain polyvinyl acetal
- resins, plasticizers and ≥5 volume% inorg. powder where the

plasticizers are obtained from RlC(:0)O(XO)nC(:0)R2 (X = C1-6 linear or branched alkylene group; R1, R2 = C1-20 linear, branched or cyclic algroup; n = 1-5) for improving the health safety of products without compromising their quality. Thus, mixing a 15% ethanol solution of BM-SZ (oblivinyl acetal) with 30 parts bm-SZ of diethylene glycol

dinonanoate (I), casting the resulting mixture into sheet and heating at 60° or 140° for 20 min gave a sheet with heat flow temperature 90° or 99° resp., vs. 142° and 142° , resp. in

the absence of I. A ceramic paste was prepared by using the resin and plasticizer above and a ceramic powder.

- ST conductive dielec ceramic paste manuf polyalkylene glycol diacylate plasticizer
- IT Polyvinyl acetals

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(BM-SZ; safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes)

- conductive pastes and dielec. pastes)
 IT Pastes
 - (dielec.; safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes)
- IT Ceramics

(pastes containing; safe plasticizers for manufacture of ceramic pastes, elec.

- conductive pastes and dielec. pastes)
 IT Electric insulators
- (pastes; safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes)
- IT Electrically conductive pastes
- Pastes

Plasticizers

(safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes)

IT 106-01-4, Diethylene glycol dinonanoate 7434-40-4, Triethylene glycol diheptanoate 7735-24-2 41395-83-9 87499-90-7 874985-14-5, Butylene glycol di(3-ethylheptanoate) RI: MOA (Modifier or additive use); USES (Uses)

(plasticizer; safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes)

- ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:100988 CAPLUS
- DN 144:180710

L7

- ED Entered STN: 03 Feb 2006
- TI Polyacetal resin as a binder resin in photosensitive layer of heat-developable photographic films
- IN Ichitani, Motokuni; Ochitani, Yukio; Takehara, Hiroaki
- PA Sekisui Chemical Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 16 pp.
- CODEN: JKXXAF DT Patent
- LA Japanese
- DA Japanese
 C 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 - Section cross-reference(s): 38

FAN	.CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006030959	A	20060202	JP 2005-116184	20050413

```
PRAI JP 2004-178717 A 20040616
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 2006030959 IPCI G03C0001-498 [I.A]; C08F0008-48 [I.A]; C08F0008-00
                      [I,C*]
               FTERM 2H123/AB00; 2H123/AB03; 2H123/AB23; 2H123/BA00;
                      2H123/BA14; 2H123/BB00; 2H123/BB39; 2H123/CB00;
                       2H123/CB03; 4J100/AD02P; 4J100/AF15P; 4J100/HC16;
                      4J100/HC18; 4J100/HC19; 4J100/JA38
   The title acetal is used as ≤400 mesh particles, wherein the extracted
    surface water from a particle solution, which is prepared by putting the
    particles in 10 times weight of distilled water, stirring the solution with 40
rpm
    at 20°C for 20 h; and standing the solution for one hour, has 5.0-8.5
    pH. The resin provides improved storageability as well as good image
    quality.
    polyacetal resin binder photosensitive layer heat developable photog film
ΙT
    Photographic films
       (heat-developable; polyvinyl acetal resin
       as binder resin in photosensitive layer of heat-developable photog.
       films)
    Polyoxymethylenes, preparation
    RL: SPN (Synthetic preparation); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
       (polyvinyl acetal resin as binder resin
       in photosensitive layer of heat-developable photog. films)
    75-07-0DP, Acetaldehyde, reaction product with poly(vinyl alc.)
    123-72-8DP, Butyl aldehyde, reaction product with poly(vinyl alc.)
    9002-89-5DP, Poly(vinyl alcohol), reaction product with aldehydes
    RL: SPN (Synthetic preparation); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
       (polyvinyl acetal resin as binder resin
       in photosensitive layer of heat-developable photog. films)
L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:1240723 CAPLUS
DN
    143:478678
ED
    Entered STN: 24 Nov 2005
TI Poly(vinyl acetal) resins for slurry compositions, conductive pastes,
    ceramic condensers, and photographic materials and their manufacture
IN Ichitani, Motokuni; Ochitani, Yukio
PA Sekisui Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
    CODEN: JKXXAF
DT Patent
T.A
   Japanese
IC
    ICM C08F016-38
    37-3 (Plastics Manufacture and Processing)
    Section cross-reference(s): 57, 74, 76
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                     APPLICATION NO. DATE
PI JP 2005325342
PRAI JP 2004-117061
                             20051124 JP 2005-113707
                                                          20050411
                       A
                       A
                             20040412
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
FTERM 4J100/AF15P; 4J100/CA01; 4J100/CA03; 4J100/DA33;
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4J100/DA39; 4J100/HA43; 4J100/HA61; 4J100/HB25;

4J100/HB52; 4J100/HC16; 4J100/HC17; 4J100/HE05; 4J100/HE32; 4J100/JA37; 4J100/JA45

- AB Title resins prepared from poly(vinyl alc.) (I) and acetals show a decrease of filtration flow rate (R) of <10% at 25° and 10-mmHg filtration pressure by 5% the resin solution (in MEK and in 1:1 PhMe/EtOH blend) and 5-µm filters. An aqueous solution of 7% I (with saponified degree 85 mol%,
- d.p. 103) was stirred at 90° for 2 h, cooled to room temperature, left for overnight to form a solution with no viscosity increase, which was reacted with butyraldehyde to form a polyvinyl butyral showing R in MEK of 94% and R in 1:1 PhMe/EtoH blend of 96%.
- ST polyvinyl acetal org soln shortened filtration process; ceramic condenser polyvinyl acetal slurry compn; elec conductive paste polyvinyl acetal manuf; heat developable photog material polyvinyl acetal emulsion
- IT Photographic emulsions

(heat-developable; manufacture of polyvinyl acetal

resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials)

IT Capacitors

(laminated ceramic sheets for; manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials)

IT Filtration

(manufacture of polyvinyl acetal resins by

fast filtration for ceramic condensers, conductive pastes, and photog.
materials)

IT Polyvinyl acetals

Polyvinyl butyrals

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of polyvinyl acetal resins by

fast filtration for ceramic condensers, conductive pastes, and photog.
materials)

IT 9002-89-5, Poly(vinyl alcohol)

RL: RCT (Reactant); RACT (Reactant or reagent)

(controlled saponified degree; manufacture of polyvinyl acetal resins by fast filtration for ceramic

condensers, conductive pastes, and photog. materials)

IT 108-88-3, Toluene, uses

RL: NUU (Other use, unclassified); USES (Uses)

(ethanol blends; manufacture of polyvinyl acetal

resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials)

IT 78-93-3, Methyl ethyl ketone, uses

RL: NUU (Other use, unclassified); USES (Uses)

(manufacture of polyvinyl acetal resins by

fast filtration for ceramic condensers, conductive pastes, and photog. materials)

IT 64-17-5, Ethanol, uses

RL: NUU (Other use, unclassified); USES (Uses)

(toluene blend; manufacture of polyvinyl acetal

resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials)

- L7 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2005:74133 CAPLUS
- DN 142:156879
- ED Entered STN: 28 Jan 2005
- II Modified polyvinyl acetal binder resin for coating paste with good applicability
- IN Ichitani, Motokuni; Ii, Daizo; Ochitani, Yukio; Takahashi, Hideyuki; Sakashita, Katsuaki

PA Sekisui Chemical Co., Ltd., Japan

PCT Int. Appl., 39 pp. SO CODEN: PIXXD2

Patent

LA Japanese

IC ICM C08F008-48 TCS C09D129-14

37-3 (Plastics Manufacture and Processing) Section cross-reference(s): 38, 74, 76 FAN.CNT 1 KIND DATE APPLICATION NO. PATENT NO. PI WO 2005007710 A1 20050127 WO 2004-JP9127 20040628 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN. TD. TG JP 2000596955 A 20050407 JP 2003-328162 JP 2005268055 A 20050929 JP 2004-79082 JP 2005303008 A 20051027 JP 2004-117062 JP 2005298792 A 20051027 JP 2004-1190554 JP 4146823 B2 20080910 EP 1637546 A1 20060322 EP 2004-746596 JP 2003-328162 JP 2004-79082 JP 2004-117062 JP 2004-190354 20040318 20040628 R: BB, DE, FER, GB, IT
CN 1809598
JP 2005298793
A 20051027
JP 2005298793
A 20051027
JP 2004-233469
JP 2005298793
A 20051027
JP 2004-233469
JP 2004-270142
US 20060192180
A1 20060831
US 2005-561971

PRAI JP 2003-328162
A 20030919
JP 2003-328163
A 20030919
JP 2004-79082
A 20040318
JP 2004-79083
A 20040318
JP 2004-17062
A 20040318
JP 2004-171062
A 2004012
WO 2004-JP9127
W 20040628 R: BE, DE, FR, GB, IT 20040628 20040810 20040916 20051222 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES WO 2005007710 ICM C08F008-48 TCS C09D129-14 IPCI C08F0008-48 [ICM, 7]; C08F0008-00 [ICM, 7, C*]; C09D0129-14 [ICS, 7]; C09D0129-00 [ICS, 7, C*] IPCR C08F0008-00 [I,C*]; C08F0008-28 [I,A]; C08F0008-48 [I,A]; C09D0129-00 [I,C*]; C09D0129-14 [I,A] ECLA C08F008/28+216/06 JP 2005089695 C08F0008-28 [ICM, 7]; C08F0008-00 [ICM, 7, C*]; IPCI C03C0008-16 [ICS,7]; C03C0008-00 [ICS,7,C*]; C08F0016-06 [ICS,7]; C08F0016-00 [ICS,7,C*]; C08K0003-40 [ICS,7]; C08K0003-00 [ICS,7,C*]; C08L0029-14 [ICS, 7]; C08L0029-00 [ICS, 7, C*]; C09J0129-14 [ICS,7]; C09J0129-00 [ICS,7,C*]; H01J0011-02 [ICS,7] IPCR C03C0008-00 [I,C*]; C03C0008-16 [I,A]; C08F0008-00 [I,C*]; C08F0008-28 [I,A]; C08F0016-00 [I,C*];

C08F0016-06 [I,A]; C08K0003-00 [I,C*]; C08K0003-40

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[I,A]; C08L0029-00 [I,C*]; C08L0029-14 [I,A];
                       C09J0129-00 [I,C*]; C09J0129-14 [I,A]; H01J0011-02
                       [I,A]; H01J0011-02 [I,C*]
                FTERM 4G062/AA09; 4G062/BB01; 4G062/MM23; 4G062/NN32;
                       4G062/PP14: 4J002/BE031: 4J002/DL006: 4J002/GJ01:
                       4J040/DD071: 4J040/HA346: 4J040/JA05: 4J040/KA03:
                       4J040/KA23; 4J040/LA06; 4J040/LA07; 4J040/MA05;
                       4J040/NA19; 4J100/AA020; 4J100/AD02S; 4J100/AF15R;
                       4J100/AG04P; 4J100/BA03H; 4J100/BC59H; 4J100/CA31;
                       4J100/HA09; 4J100/HA43; 4J100/HC18; 4J100/HC19;
                       4J100/JA03; 5C040/GF18; 5C040/KA07; 5C040/KA08
JP 2005268055
                IPCI
                       H01B0001-22 [ICM, 71; H05K0003-12 [ICS, 71; H01G0004-12
                       [ICS, 7]
                TPCR
                       H01B0001-22 [I,A]; H01B0001-22 [I,C*]; H01G0004-12
                       [N,A]; H01G0004-12 [N,C*]; H05K0003-12 [I,A];
                       H05K0003-12 [I,C*]
                FTERM 5E001/AB03; 5E001/AC09; 5E001/AH01; 5E001/AJ01;
                       5E343/AA23; 5E343/BB23; 5E343/BB24; 5E343/BB25;
                       5E343/BB44; 5E343/BB48; 5E343/BB49; 5E343/BB76;
                       5E343/DD03; 5E343/DD64; 5E343/FF02; 5E343/FF11;
                       5E343/GG02; 5E343/GG08; 5G301/DA10; 5G301/DA42;
                       5G301/DD01
JP 2005303008
              IPCI
                       H01G0004-12 [ICM, 7]; B28B0001-30 [ICS, 7]; C04B0035-00
                       [ICS.71: C04B0035-632 [ICS.71: C04B0035-63 [ICS.7.C*]:
                       B28B0011-00 [ICS, 7]
                TPCR
                       B28B0001-30 [I,A]; B28B0001-30 [I,C*]; B28B0011-00
                       [N,A]; B28B0011-00 [N,C*]; C04B0035-00 [I,A];
                       C04B0035-00 [I,C*]; C04B0035-63 [I,C*]; C04B0035-632
                       [I,A]; H01G0004-12 [I,A]; H01G0004-12 [I,C*]
                FTERM 4G030/AA07; 4G030/AA10; 4G030/AA16; 4G030/AA17;
                       4G030/AA32; 4G030/AA36; 4G030/AA37; 4G030/AA47;
                       4G030/AA51; 4G030/AA52; 4G030/BA09; 4G030/GA14;
                       4G030/GA17; 4G030/PA11; 4G030/PA21; 4G052/DA05;
                       4G052/DA08; 4G052/DB12; 4G052/DC06; 4G055/AA08;
                       4G055/AA10; 4G055/AC01; 4G055/AC09; 4G055/BA22;
                       4G055/BA35; 4G055/BA43; 5E001/AB06; 5E001/AH01;
                       5E001/AJ02
JP 2005298792
              IPCI
                       H01B0001-22 [I,A]; C08F0216-38 [I,A]; C08F0216-00
                       [I,C*]; C08L0029-14 [I,A]; C08L0029-00 [I,C*];
                       C08K0003-00 [I,A]; C08K0005-00 [I,A]
                       C08F0216-00 [I.C*]; C08F0216-38 [I.A]; C08K0003-00
                IPCR
                       [I,A]; C08K0003-00 [I,C*]; C08K0005-00 [I,A];
                       C08K0005-00 [I,C*]; C08L0029-00 [I,C*]; C08L0029-14
                       [I.A]; H01B0001-22 [I,A]; H01B0001-22 [I,C*];
                       H01G0004-12 [N,A]; H01G0004-12 [N,C*]; H01G0004-30
                       [N,A]; H01G0004-30 [N,C*]
                FTERM 4J002/BE061; 4J002/DA076; 4J002/DA106; 4J002/DA116;
                       4J002/EF027; 4J002/EF037; 4J002/EF057; 4J002/EH158;
                       4J002/EN027: 4J002/FD116: 4J002/GO02: 4J002/HA08:
                       4J100/AA00S; 4J100/AA01S; 4J100/AA02S; 4J100/AA03S;
                       4J100/AD02Q; 4J100/AF15P; 4J100/AG02R; 4J100/AG03R;
                       4J100/AG04R; 4J100/CA06; 4J100/JA45; 5E001/AB03;
                       5E001/AC09; 5E001/AH01; 5E001/AJ01; 5E082/AA01;
                       5E082/AB03; 5E082/BC32; 5E082/BC33; 5E082/BC40;
                       5E082/EE04; 5E082/EE23; 5E082/EE35; 5E082/FF05;
                       5E082/FG04; 5E082/FG26; 5E082/FG46; 5E082/FG54;
                       5E082/KK01; 5E082/LL02; 5E082/MM22; 5E082/MM24;
                       5E082/PP03; 5G301/DA10; 5G301/DA42; 5G301/DD01
EP 1637546
                IPCI
                       C08F0008-48 [ICM, 7]; C08F0008-00 [ICM, 7, C*];
                       C09D0129-14 [ICS,7]; C09D0129-00 [ICS,7,C*]
                IPCR C08F0008-00 [I,C*]; C08F0008-28 [I,A]; C08F0008-48
                       [I,A]; C09D0129-00 [I,C*]; C09D0129-14 [I,A]
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CN 1809598
                 IPCI
                        C08F0008-48 [I,A]; C08F0008-00 [I,C*]; C09D0129-14
                        [I,A]; C09D0129-00 [I,C*]
JP 2005298793
                        C08L0029-14 [ICM, 7]; C08L0029-00 [ICM, 7, C*];
                 TPCT
                        C08F0016-38 [ICS,7]; C08F0016-00 [ICS,7,C*];
                        C08K0005-04 [ICS,7]; C08K0005-00 [ICS,7,C*]
                 IPCR
                        C08F0016-00 [I,C*]; C08F0016-38 [I,A]; C08K0005-00
                        [I,C*]; C08K0005-04 [I,A]; C08L0029-00 [I,C*];
                        C08L0029-14 [I,A]
                 FTERM 4J002/BE061; 4J002/CH052; 4J002/DA076; 4J002/DA086;
                        4J002/DB006; 4J002/EF037; 4J002/EF058; 4J002/EG037;
                        4J002/EH057: 4J002/EH157: 4J002/EN028: 4J002/EP018:
                        4J002/FD116; 4J002/GQ02; 4J100/AA02Q; 4J100/AD02P;
                        4J100/AF15P; 4J100/BA10H; 4J100/CA06; 4J100/CA31;
                        4J100/HA09; 4J100/HA56; 4J100/HA61; 4J100/HB25;
                        4J100/HC19; 4J100/JA45
JP 2005113133
               IPCI
                        C09D0011-10 [ICM, 7]; H01B0001-22 [ICS, 7]; H01B0003-00
                        [ICS, 7]; H05K0003-12 [ICS, 7]
                 IPCR
                        C09D0011-10 [I,A]; C09D0011-10 [I,C*]; H01B0001-22
                        [I,A]; H01B0001-22 [I,C*]; H01B0003-00 [I,A];
                        H01B0003-00 [I,C*]; H05K0003-12 [I,A]; H05K0003-12
                        [I,C*]
                 FTERM 4J039/AD07; 4J039/BA06; 4J039/BA07; 4J039/BC03;
                        4J039/BC07; 4J039/BC18; 4J039/BC19; 4J039/BC20;
                        4J039/BC26; 4J039/BE29; 4J039/CA04; 4J039/EA24;
                        4J039/EA43; 4J039/EA48; 4J039/FA04; 4J039/FA06;
                        4J039/GA10; 5E343/BB23; 5E343/BB24; 5E343/BB25;
                        5E343/BB44; 5E343/BB48; 5E343/BB49; 5E343/BB72;
                        5E343/CC17; 5E343/DD03; 5E343/GG08; 5G301/DA10;
                        5G301/DA42; 5G301/DD01; 5G303/AA10; 5G303/AB20;
                        5G303/BA07; 5G303/CA01; 5G303/CA02; 5G303/CA09;
                        5G303/CB01; 5G303/CB03; 5G303/CB35
US 20060192180 IPCI
                       H01B0001-12 [I,A]
                 NCL
                       252/500.000
                 ECLA
                       C08F008/28+216/06
AR
    A modified polyvinyl acetal with excellent dispersibility for inorg.
     powders is useful for a binder resin for coating pastes, a conductive
     paste, a ceramic paste or a glass paste for use in, e.g., display panel or
     semiconductor device fabrication, etc. The modified polyvinyl acetal
     comprises a vinyl ester unit, a vinyl alc. unit, an a-olefin unit
     and an acetal unit. Thus, acetalizing a saponified poly(vinyl alc.) having
     ethylene unit content 10 mol% and saponification degree 88 mol% with Bu
aldehyde
     gave a modified polyvinyl acetal resin which
     was kneaded with 2020 SS (Ni powder) and \alpha-terpineol to give a
     conducting paste.
ST
     elec conducting paste manuf binder modified vinvl acetal resin
IT
    Aluminoborosilicate glasses
     RL: MOA (Modifier or additive use); USES (Uses)
        (lead aluminoborosilicate, powder; manufacture of modified polyvinyl acetal
        binder resin for coating paste with good dispersibility)
     Electrically conductive pastes
```

ECLA

C08F008/28+216/06

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (paste containing S-Lec BM-S; manufacture of modified polyvinyl acetal

(manufacture of modified polyvinyl acetal binder resin for coating paste

binder

resin for coating paste with good dispersibility)

Semiconductor device fabrication

with good dispersibility)

Polyvinyl acetals

```
7440-02-0, 2020SS, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (2020SS, conductive powder; manufacture of modified polyvinyl acetal binder
        resin for coating paste with good dispersibility)
     12047-27-7, BT 03, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (ceramic powder; manufacture of modified polyvinyl acetal binder resin for
        coating paste with good dispersibility)
     24937-78-8DP, EVA, saponified, acetal derivs.
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (manufacture of modified polyvinyl acetal binder resin for coating paste
       with good dispersibility)
RE.CNT 6
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Konica Corp; JP 2002283699 A 2002 CAPLUS
(2) Kuraray Co Ltd; JP 63-79741 A 1988 CAPLUS
(3) Kuraray Co Ltd; JP 63-79752 A 1988 CAPLUS
(4) Kuraray Co Ltd; EP 1384731 A1 2004 CAPLUS
(5) Kuraray Co Ltd; US 20040024137 A1 2004
(6) Kurarav Co Ltd; JP 200468013 A 2004
=> s conductive paste#
        191476 CONDUCTIVE
        122590 PASTE#
         6689 CONDUCTIVE PASTE#
L8
                 (CONDUCTIVE (W) PASTE#)
=> d his
     (FILE 'HOME' ENTERED AT 10:55:14 ON 22 SEP 2008)
     FILE 'CAPLUS' ENTERED AT 10:55:43 ON 22 SEP 2008
                E US2006192180/PN
                E US20060192180/PN
              1 S E3
     FILE 'REGISTRY' ENTERED AT 10:58:28 ON 22 SEP 2008
              1 S 7440-02-0/RN
L3
              1 S 12047-27-7/RN
L4
              1 S 24937-78-8/RN
     FILE 'CAPLUS' ENTERED AT 11:02:01 ON 22 SEP 2008
            428 S POLYVINYL ACETAL RESIN#
1.5
                E ICHITANI MOTO/AU
             51 S E4
L6
L7
              6 S L5 AND L6
L8
          6689 S CONDUCTIVE PASTE#
=> s 15 and 18
L9
            6 L5 AND L8
=> d 1-6 all
1.9
    ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
AN
     2008:769897 CAPLUS
DN
     149:55302
ED
    Entered STN: 26 Jun 2008
    Modified polyvinyl acetal resins and their
    coating, electrically conductive, and ceramic pastes
```

- IN Ichitani, Motokuni
- PA Sekisui Chemical Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 13pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese
 - 38-3 (Plastics Fabrication and Uses) Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	JP 2008143922 JP 2006-328828	A	20080626	JP 2006-328828	20061205	
PKAI	JP 2006-328828		20061205			
CIACO	2					

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2008143922 IPCI C08F0008-28 [I,A]; C08F0008-00 [I,C*]; H01B0001-22 [I,A]; C09D0005-24 [I,A]; C09D0129-14 [I,A]; C09D0129-00 [I,C*]

FTERM 4J038/CE061; 4J038/HA066; 4J038/HA186; 4J038/HA216; 4J038/HA316; 4J038/HA436; 4J038/HA466; 4J038/KA06; 4J038/NA20; 4J038/PB09; 4J100/AA020; 4J100/AA02R; 4J100/AD02S; 4J100/AF15T; 4J100/AF16T; 4J100/AG02P; 4J100/AG03P; 4J100/AG04P; 4J100/AG06P; 4J100/AJ02Q; 4J100/AJ09Q; 4J100/AJ10Q; 4J100/AK08S; 4J100/AK20S; 4J100/AK32Q; 4J100/AM02Q; 4J100/AM15Q; 4J100/BA03H; 4J100/BA03T; 4J100/BA16H; 4J100/BA16Q; 4J100/BC43T; 4J100/BC59H; 4J100/CA04; 4J100/CA05; 4J100/CA31; 4J100/DA30; 4J100/DA32; 4J100/DA33; 4J100/HA09; 4J100/HA43; 4J100/HB39; 4J100/HC17; 4J100/HC18; 4J100/HC19; 4J100/HC20; 4J100/HE12; 4J100/JA01;

4J100/JA44; 4J100/JA45; 5G301/DA03; 5G301/DA05; 5G301/DA06; 5G301/DA10; 5G301/DA11; 5G301/DA12;

5G301/DA42; 5G301/DD01

The invention relates to title resins, useful for multilayer ceramic AB capacitors, with content of ethylene, pendant OH, and pendant CO2H, resp., 1-20, 15-40, and 0.01-10 mol% and degree of saponification and acetalization, resp., ≥80 and 40-80 mol% manufactured by acetalization of modified vinyl alc. polymers with aldehydes. Thus, a conductive paste containing a modified polyvinyl butyral manufactured from a saponified ethylene-vinyl acetate copolymer and a saponified itaconic acid-vinyl acetate copolymer showed good screen printability.

ST screen printability multilayer ceramic capacitor polyvinyl butyral; sapond ethylene vinyl acetate copolymer polyvinyl butyral; polyvinyl butyral sapond itaconic acid vinyl acetate copolymer

ΤТ Electrically conductive pastes

(modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

Polyvinyl butyrals

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

Aldehydes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

Ceramic capacitors

(multilayer; modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

Ceramic coatings Coating materials (pastes; modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

- 24937-78-8DP, Ethylene-vinyl acetate copolymer, saponified, acetal with butyraldehyde 43158-52-7DP, Itaconic acid-vinyl acetate copolymer, saponified, acetal with butyraldehyde
 - RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for

multilaver ceramic capacitors)

75-07-0, Acetaldehyde, reactions 123-72-8. Butvraldehyde RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

- 1.9 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2007:760073 CAPLUS
- DN 147 - 155558
- Entered STN: 13 Jul 2007 ED
- TΙ Multilayer electronic component and its fabrication

KIND DATE

- IN Sogabe, Tomohiro; Kojima, Tatsuya
- PA TDK Corporation, Japan
- SO Jpn. Kokai Tokkvo Koho, 12pp.
- CODEN: JKXXAF DT Patent
- LA Japanese
- 76-3 (Electric Phenomena)
- FAN.CNT 1 PATENT NO.

PI JP 200718019	98	A	20070712	JP 2	2005-375798	200513	227
PRAI JP 2005-375	798		20051227				
CLASS							
	07.7.00	D					
PATENT NO.	CLASS	PATENT B	AMILY CLASS	SIFICE	ATTON CODES		
JP 2007180198	IPCI	H01G0004	-12 [I,A];	H01G0	0004-30 [I,A]		
	IPCR	H01G0004	-12 [I.C]:	H01G0	0004-12 [I.A]	; H01G0004-30	0
		II.Cl: F	101G0004-30	IT.A	1		
	FTERM				5E001/AD04;	50001/5001.	
	FIERM						
		5E001/AF	105; 5E001/ <i>F</i>	\J01;	5E001/AJ02;	5E082/AB03;	
		5E082/EE	04; 5E082/E	EE11;	5E082/EE23;	5E082/EE35;	
		5E082/FF	05: 5E082/E	G06:	5E082/FG26;	5E082/FG48:	
		5E082/LI		,	,	,	

APPLICATION NO.

DATE

- A method for fabricating a multilayer electronic component involves preparing a sheet laminate from a unit of a first green sheet, second green sheet on the first, and a conductor layer from a paste on the second green sheet, and pressing the sheet laminate: the paste containing a solvent for dissolving the resin of the second green sheet more than that of the first green sheet to remove the step difference. Specifically, the solvent may comprise dihydroterpineol, and the resins may comprise a polyvinyl acetal resin and cellulose resin.
- ST multilayer electronic device fabrication conductor paste solvent green sheet
- Electric apparatus
 - Electrically conductive pastes

Electronic device fabrication

(multilayer electronic component and its fabrication using conductor paste and green sheets)

- Polyvinyl acetals
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (multilayer electronic component and its fabrication using conductor paste and green sheets)
- 9004-34-6, Cellulose, uses 58985-02-7, Dihydroterpineol

- RL: TEM (Technical or engineered material use); USES (Uses) (multilayer electronic component and its fabrication using conductor paste and green sheets)
- ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN 1.9
- AN 2006:101214 CAPLUS
- DN 144:193288
- ED Entered STN: 03 Feb 2006
- TI Ceramic pastes, electrically conductive pastes and dielectric pastes
- IN Ichitani, Motokuni; Ochitani, Yukio
- PA Sekisui Chemical Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI JP 2006027990 PRAI JP 2004-213479 CLASS	A	20060202 20040721	JP 2004-213479	20040721		

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2006027990 TPCT C04B0035-632 [I,A]; C04B0035-63 [I,C*]; H01B0001-22 [I,A]; H01B0003-00 [I,A]; C04B0035-00 [I,A] FTERM 4G030/AA10; 4G030/AA16; 4G030/BA09; 4G030/GA14;

4G030/GA15; 4G030/PA22; 5G301/DA02; 5G301/DA03; 5G301/DA04; 5G301/DA05; 5G301/DA33; 5G301/DA34; 5G301/DA42; 5G301/DD01; 5G303/AA05; 5G303/AB20; 5G303/BA07; 5G303/CA01; 5G303/CA02; 5G303/CA03;

5G303/CA09

MARPAT 144:193288 OS

AB The title pastes contain polyvinyl acetal

resins, plasticizers and ≥5 volume% inorg. powder where the plasticizers are obtained from R1C(:0)O(XO)nC(:0)R2 (X = C1-6 linear or branched alkylene group; R1,R2 = C1-20 linear, branched or cyclic alkyl group; n = 1-5) for improving the health safety of products without compromising their quality. Thus, mixing a 15% ethanol solution of BM-SZ (polyvinyl acetal) with 30 parts per 100 parts BM-SZ of diethylene glycol dinonanoate (I), casting the resulting mixture into sheet and heating at 60° or 140° for 20 min gave a sheet with heat flow temperature 90° or 99°, resp., vs. 142° and 142°, resp. in the absence of I. A ceramic paste was prepared by using the resin and

plasticizer above and a ceramic powder. ST conductive dielec ceramic paste manuf polyalkylene glycol diacylate plasticizer

Polyvinyl acetals

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(BM-SZ; safe plasticizers for manufacture of ceramic pastes, elec.

conductive pastes and dielec. pastes)

Pastes

(dielec.; safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes)

Ceramics

(pastes containing; safe plasticizers for manufacture of ceramic pastes, elec.

conductive pastes and dielec. pastes)

IT Electric insulators

(pastes; safe plasticizers for manufacture of ceramic pastes, elec.

conductive pastes and dielec. pastes) Electrically conductive pastes Pastes Plasticizers (safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes) 7434-40-4, Triethylene glycol 106-01-4, Diethylene glycol dinonanoate diheptanoate 7735-24-2 41395-83-9 874909-90-7 874985-14-5, Butylene glycol di(3-ethylheptanoate) RL: MOA (Modifier or additive use); USES (Uses) (plasticizer; safe plasticizers for manufacture of ceramic pastes, elec. conductive pastes and dielec. pastes) 1.9 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN AN 2005:1240723 CAPLUS DN 143:478678 ED Entered STN: 24 Nov 2005 ΤI Poly(vinyl acetal) resins for slurry compositions, conductive pastes, ceramic condensers, and photographic materials and their manufacture TN Ichitani, Motokuni; Ochitani, Yukio PA Sekisui Chemical Co., Ltd., Japan SO Jpn. Kokai Tokkvo Koho, 10 pp. CODEN: JKXXAF DT Patent LA. Japanese TCM C08F016-38

CC 37-3 (Plastics Man Section cross-refe				
FAN.CNT 1				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	A		JP 2005-113707	20050411
PRAI JP 2004-117061	A	20040412		
CLASS				
PATENT NO. CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 2005325342 ICM	C08F016	_30		
			1; C08F0016-00 [ICM.7.C	+1
FTERM			/CA01; 4J100/CA03; 4J10	
	4J100/E	A39; 4J100/	HA43; 4J100/HA61; 4J100	/HB25;
	4J100/H	B52; 4J100/	HC16; 4J100/HC17; 4J100.	/HE05;
	4J100/H	E32; 4J100/	JA37; 4J100/JA45	
AB Title resins prepa	red from	polv(vinvl	alc.) (I) and acetals :	show a decrease
			t 25° and 10-mmHg filtr	

5-μm filters. An aqueous solution of 7% I (with saponified degree 85 mol%, d.p. 103) was stirred at 90° for 2 h, cooled to room temperature, left for overnight to form a solution with no viscosity increase, which was reacted with butvraldehyde to form a polyvinyl butvral showing R in MEX of 94% and

pressure by 5% the resin solution (in MEK and in 1:1 PhMe/EtOH blend) and

- R in 1:1 PhMe/EtoH blend of 96%.

 ST polyvinyl acetal org soln shortened filtration process; ceramic condenser polyvinyl acetal slurry compn; elec conductive paste polyvinyl acetal manuf; heat developable photog material polyvinyl acetal
- IT Photographic emulsions

(heat-developable; manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers,

conductive pastes, and photog. materials)

IT Capacitors

emulsion

(laminated ceramic sheets for; manufacture of polyvinyl

acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials) Filtration (manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials) Polyvinyl acetals Polyvinyl butyrals RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials) 9002-89-5, Poly(vinyl alcohol) RL: RCT (Reactant); RACT (Reactant or reagent) (controlled saponified degree; manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials) 108-88-3, Toluene, uses RL: NUU (Other use, unclassified); USES (Uses) (ethanol blends; manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers. conductive pastes, and photog. materials) 78-93-3, Methyl ethyl ketone, uses RL: NUU (Other use, unclassified); USES (Uses) (manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials) 64-17-5, Ethanol, uses RL: NUU (Other use, unclassified); USES (Uses) (toluene blend; manufacture of polyvinyl acetal resins by fast filtration for ceramic condensers, conductive pastes, and photog. materials) L9 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN AN 2005:74133 CAPLUS DN 142:156879 ED Entered STN: 28 Jan 2005 Modified polyvinyl acetal binder resin for coating paste with good applicability IN Ichitani, Motokuni; Ii, Daizo; Ochitani, Yukio; Takahashi, Hideyuki; Sakashita, Katsuaki PA Sekisui Chemical Co., Ltd., Japan PCT Int. Appl., 39 pp. SO CODEN: PIXXD2 Patent LA Japanese IC ICM C08F008-48 ICS C09D129-14 37-3 (Plastics Manufacture and Processing) Section cross-reference(s): 38, 74, 76 FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE 20050127 WO 2004-JP9127 WO 2005007710 A1 20040628 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,

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WO 2005007710 ICM
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[ICS, 7]; H05K0003-12 [ICS, 7]
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AB
     A modified polyvinyl acetal with excellent dispersibility for inorg.
     powders is useful for a binder resin for coating pastes, a
     conductive paste, a ceramic paste or a glass paste for
     use in, e.g., display panel or semiconductor device fabrication, etc. The
     modified polyvinyl acetal comprises a vinyl ester unit, a vinyl alc. unit,
     an \alpha-olefin unit and an acetal unit. Thus, acetalizing a saponified poly(vinyl alc.) having ethylene unit content 10 mol% and saponification
degree 88
     mol% with Bu aldehyde gave a modified polyvinyl acetal
     resin which was kneaded with 2020 SS (Ni powder) and
     a-terpineol to give a conducting paste.
ST
     elec conducting paste manuf binder modified vinyl acetal resin
ΙT
     Aluminoborosilicate glasses
     RL: MOA (Modifier or additive use); USES (Uses)
        (lead aluminoborosilicate, powder; manufacture of modified polyvinyl acetal
        binder resin for coating paste with good dispersibility)
     Electrically conductive pastes
     Semiconductor device fabrication
        (manufacture of modified polyvinyl acetal binder resin for coating paste
        with good dispersibility)
     Polyvinyl acetals
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (paste containing S-Lec BM-S; manufacture of modified polyvinyl acetal
binder
        resin for coating paste with good dispersibility)
     7440-02-0, 2020SS, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (2020SS, conductive powder; manufacture of modified polyvinyl acetal binder
        resin for coating paste with good dispersibility)
     12047-27-7, BT 03, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (ceramic powder; manufacture of modified polyvinyl acetal binder resin for
        coating paste with good dispersibility)
     24937-78-8DP, EVA, saponified, acetal derivs.
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (manufacture of modified polyvinyl acetal binder resin for coating paste
        with good dispersibility)
RE.CNT 6
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Konica Corp; JP 2002283699 A 2002 CAPLUS
(2) Kuraray Co Ltd; JP 63-79741 A 1988 CAPLUS
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C09D0011-10 [I,A]; C09D0011-10 [I,C*]; H01B0001-22 [I,A]; H01B0001-22 [I,C*]; H01B0003-00 [I,A]; H01B0003-00 [I,C*]; H05K0003-12 [I,A]; H05K0003-12

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TPCR

NCL.

ECLA

US 20060192180 IPCI

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H01B0001-12 [I,A]

C08F008/28+216/06

252/500.000

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(3) Kuraray Co Ltd; JP 63-79752 A 1988 CAPLUS
(4) Kuraray Co Ltd; EP 1384731 A1 2004 CAPLUS
(5) Kuraray Co Ltd; US 20040024137 A1 2004
(6) Kurarav Co Ltd; JP 200468013 A 2004
L9
   ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:692381 CAPLUS
DN 127:325297
OREF 127:63667a
ED Entered STN: 01 Nov 1997
TI Electrically conductive copper paste composition containing
    polyvinyl acetal resin
IN
    Komiyatani, Toshiro; Nagata, Hiroshi
PA Sumitomo Bakelite Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 6 pp.
    CODEN: JKXXAF
DT Patent
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IC
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    JP 09274812
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    The composition contains Cu powders, a thermosetting resin, a polyvalent phenol
    monomer, a solvent, and a polyvinyl acetal
     resin. The composition shows good reliability for a through hole in a
     printed circuit. The composition shows good adhesion, heat resistance, and
ST copper elec conductive paste polyvinyl acetal;
    conductive copper paste elec printed circuit
    Electrically conductive pastes
     Printed circuits
        (elec. conductive Cu paste composition containing polyvinyl
        acetal resin for printed circuit)
     Polyvinyl acetals
     RL: DEV (Device component use); MOA (Modifier or additive use); USES
     (Uses)
        (elec. conductive Cu paste composition containing polyvinyl
        acetal resin for printed circuit)
     Phenolic resins, uses
     RL: DEV (Device component use); USES (Uses)
        (resol; elec. conductive Cu paste composition containing polyvinyl
        acetal resin for printed circuit)
     7440-50-8, Copper, uses
     RL: DEV (Device component use); USES (Uses)
        (elec. conductive Cu paste composition containing polyvinyl
       acetal resin for printed circuit)
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REG1stRY INITIATED

Substance data EXPAND from CAS REGISTRY in progress...

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L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1995:184690 CAPLUS
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    122:257322
OREF 122:46765a,46768a
ΤТ
    Foreign genes expression in rat vascular smooth muscle cells
    Yao, Aging; Sun, Shuangdan; Zhu, Xiaojun; Wen, Jinkun; Yu, Weiyuan;
ΑU
     Li, Daizon; Gu, Jianren; Zhou, Airu; Tang, Jian
CS
     Inst. Cardiovascular Res., Beijing Med. Univ., Beijing, 100083, Peop. Rep.
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SO
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L11 31 "LI DAIZONG"/AU

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L11 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:728040 CAPLUS
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TI
    Tobacco Smoke Control of Mucin Production in Lung Cells Requires Oxygen
    Radicals AP-1 and JNK
AU
   Gensch, Erin; Gallup, Marianne; Sucher, Anatol; Li, Daizong;
    Gebremichael, Assefa; Lemjabbar, Hassan; Mengistab, Aklilu; Dasari, Vijay;
    Hotchkiss, Jon; Harkema, Jack; Basbaum, Carol
CS
   Department of Anatomy, Cardiovascular Research Institute and Biomedical
    Sciences Graduate Program, University of California, San Francisco, CA,
    94143, USA
SO
    Journal of Biological Chemistry (2004), 279(37), 39085-39093
    CODEN: JBCHA3; ISSN: 0021-9258
PB
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DT
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LA
RE.CNT 48
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    2006:363019 CAPLUS
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    144:370933
TI Aqueous polyvinyl acetal dispersion with good dispersibility under neutral
    condition
TN
   Ichitani, Motokuni; Sakashita, Katsuaki
PA Sekisui Chemical Co., Ltd., Japan
SO
   Jpn. Kokai Tokkyo Koho, 6 pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
FAN.CNT 1
                             DATE
    PATENT NO.
                       KIND
                                        APPLICATION NO.
                                                               DATE
   JP 2006104268
                       A 20060420
                                        JP 2004-290490
                                                              20041001
PRAT JP 2004-290490
                              20041001
=> d his
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     FILE 'CAPLUS' ENTERED AT 10:55:43 ON 22 SEP 2008
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               E US20060192180/PN
L1
             1 S E3
     FILE 'REGISTRY' ENTERED AT 10:58:28 ON 22 SEP 2008
L2
             1 S 7440-02-0/RN
             1 S 12047-27-7/RN
L3
L4
             1 S 24937-78-8/RN
    FILE 'CAPLUS' ENTERED AT 11:02:01 ON 22 SEP 2008
L5
           428 S POLYVINYL ACETAL RESIN#
              E ICHITANI MOTO/AU
L6
            51 S E4
L7
            6 S L5 AND L6
          6689 S CONDUCTIVE PASTE#
L8
L9
             6 S L5 AND L8
     FILE 'REGISTRY' ENTERED AT 11:13:44 ON 22 SEP 2008
               E LI DAIZO/CN
     FILE 'CAPLUS' ENTERED AT 11:13:45 ON 22 SEP 2008
               E LI DAIZO/AU
L10
             1 S E4
L11
            31 S E5
              E OCHITANI YUKIO/AU
1.12
            39 S E3
              E TAKAHASHI HIDEYUKI/AU
L13
          659 S E3
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E SAKASHITA KATSUAKI/AU
L14
           31 S E3
=> s (111 or 112 or 113 or 114) and 15
          9 (L11 OR L12 OR L13 OR L14) AND L5
=> s 115 not 19
L16
           6 L15 NOT L9
=> d 1-6 all
L16 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:100988 CAPLUS
DN
   144:180710
ED
   Entered STN: 03 Feb 2006
TI
   Polyacetal resin as a binder resin in photosensitive layer of
    heat-developable photographic films
IN
    Ichitani, Motokuni; Ochitani, Yukio; Takehara, Hiroaki
PA
   Sekisui Chemical Co., Ltd., Japan
SO
   Jpn. Kokai Tokkyo Koho, 16 pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
CC
    74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
    Section cross-reference(s): 38
FAN.CNT 1
                           DATE
                                     APPLICATION NO. DATE
    PATENT NO.
                     KIND
    -----
                     ----
                                      -----
   JP 2006030959
                     A
                           20060202 JP 2005-116184
                                                          20050413
PRAI JP 2004-178717
                     A
                            20040616
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
[I,C*]
               FTERM 2H123/AB00; 2H123/AB03; 2H123/AB23; 2H123/BA00;
                     2H123/BA14; 2H123/BB00; 2H123/BB39; 2H123/CB00;
                     2H123/CB03; 4J100/AD02P; 4J100/AF15P; 4J100/HC16;
                     4J100/HC18; 4J100/HC19; 4J100/JA38
AB
    The title acetal is used as ≤400 mesh particles, wherein the extracted
    surface water from a particle solution, which is prepared by putting the
    particles in 10 times weight of distilled water, stirring the solution with 40
rpm
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- at 20°C for 20 h; and standing the solution for one hour, has 5.0-8.5 pH. The resin provides improved storageability as well as good image
- quality.

 ST polyacetal resin binder photosensitive layer heat developable photog film
- IT Photographic films
 (heat-developable; polyvinyl acetal resin
 - as binder resin in photosensitive layer of heat-developable photog. films)
- IT Polyoxymethylenes, preparation RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyvinyl acetal resin as binder resin
- in photosensitive layer of heat-developable photog. films)
 T 75-07-0DP, Acetaldehyde, reaction product with poly(vinyl alc.)
- 123-72-8DP, Butyl aldehyde, reaction product with poly(vinyl alc.) 9002-89-5DP, Poly(vinyl alcohol), reaction product with aldehydes RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyvinyl acetal resin as binder resin in photosensitive layer of heat-developable photog. films)

- L16 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:100691 CAPLUS
- DN 144:180708
- ED Entered STN: 03 Feb 2006
- TI Polyvinyl acetal resin as binder resin in
- photosensitive layer of heat-developable photographic films
- IN Ichikoku, Motokuni; Ochitani, Yukio; Takehara, Hiroaki; Maeda, Takavuki
- PA Sekisui Chemical Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 16 pp.
- CODEN: JKXXAF
- LA Japanese
- The Companies of C

Section cross-reference(s): 38

FAN	CI	N.	T	_ 1	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006030935	A	20060202	JP 2004-278488	20040924
PRAI JP 2004-178718	A	20040616		
01300				

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2006030935	TPCT	G03C0001-498 [T.A]

FTERM 2H123/AB00; 2H123/AB03; 2H123/AB23; 2H123/AB25; 2H123/AB00; 2H123/BA14; 2H123/CB00; 2H123/CB03

AB The title resin contains <100 ppm of total content of 2 kinds of materials chosen from: alkali metals; halogen ions; nitrate; and sulfate excluding alkali metal/halogen ion combination. The polyvinyl acetal resin provides the photog. film of good storage

ability and high image quality without fogging, coloring, etc. I polyvinyl acetal resin binder layer heat

- ST polyvinyl acetal resin binder layer hea developable photog film
- T Alkali metals, occurrence

RL: OCU (Occurrence, unclassified); OCCU (Occurrence)

(binder resin in photosensitive layer of heat-developable photog. films)

IT Photographic films

(heat-developable; polyvinyl acetal resin

as binder resin in photosensitive layer of heat-developable photog.

IT Halogens

RL: OCU (Occurrence, unclassified); OCCU (Occurrence)

(ions; binder resin in photosensitive layer of heat-developable photog. films)

IT Acetals

RL: TEM (Technical or engineered material use); USES (Uses)

(polyacetals, nonpolymeric; binder resin in photosensitive layer of heat-developable photog. films)

IT 14797-55-8, Nitrate, occurrence 14808-79-8, Sulfate, occurrence RL: OCU (Occurrence, unclassified); OCCU (Occurrence)

(binder resin in photosensitive layer of heat-developable photog. films)

IT 75-07-0DP, Acetaldehyde, reaction product with poly(vinyl alc.) 123-72-BDP, Butyl aldehyde, reaction product with poly(vinyl alc.) 9002-89-5DP, Poly(vinyl alcohol), reaction product with aldehydes RL: SPN (Synthetic preparation); TBM (Technical or engineered material use); PREP (Preparation); USES (USes) (binder resin in photosensitive layer of heat-developable photog. films)

- L16 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:48707 CAPLUS
- DN 144:117722
- ED Entered STN: 19 Jan 2006
- TI Heat-developable photographic material and polyvinyl acetal binder for it
- IN Ichikoku, Motokuni; Ochitani, Yukio
- PA Sekisui Chemical Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 14 pp.
- CODEN: JKXXAF
- DT Patent
- T.A Japanese
- CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

I FIN CONT I						
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI JP 2006017876	A	20060119	JP 2004-193700	20040630		
PRAI JP 2004-193700		20040630				
CLASS						
PATENT NO. CLASS	PATENT	FAMILY CLASS	IFICATION CODES			
JP 2006017876 TPCT	G03C000	11-498 [T.Al:	COSF0008-28 [T.Al: COS	3F0008-00		

[I,C*]; C08F0016-38 [I,A]; C08F0016-00 [I,C*] FTERM 2H123/AB00; 2H123/AB03; 2H123/AB23; 2H123/AB25; 2H123/BA00; 2H123/BA14; 2H123/CB00; 2H123/CB03; 4J100/AD02P; 4J100/AF15P; 4J100/CA01; 4J100/CA31;

4J100/DA37; 4J100/HA43; 4J100/HC16 ΔR

The binder is polyvinyl acetal resin with residual acetyl group ≤25 mol%, residual OH group 17-23 mol%, polymerization degree 200-3000, and its 20 µm-thick sheet shows moisture permeability ≤500 g/cm2 day (based on JIS Z 0208). The binder shows less moisture permeability, and photog. material using the

- binder shows good storage stability and gives images without fog.
- heat developable photog film binder; polyvinyl acetal moisture
- permeability binder Polyvinyl acetals
 - Polyvinyl butyrals
 - - RL: TEM (Technical or engineered material use); USES (Uses)
 - (acetal butyrals; heat-developable photog, material using polyvinyl acetal binder)
 - Polyvinyl butyrals
 - RL: TEM (Technical or engineered material use); USES (Uses)
- (heat-developable photog, material using polyvinyl acetal binder)
- Photographic films
 - (heat-developable; heat-developable photog, material using polyvinyl acetal binder)
- Alkenes, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (α-, copolymers with polyvinyl acetal; heat-developable photog. material using polyvinyl acetal binder)
- L16 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1994:78549 CAPLUS
- DN 120:78549
- OREF 120:14137a,14140a
- ED Entered STN: 19 Feb 1994
- TI Polyvinyl acetal resin particles and their preparation
- IN Ochitani, Yukio

- PA Sekisui Chemical Co. Ltd., Japan
- Jpn. Kokai Tokkyo Koho, 7 pp. SO CODEN: JKXXAF
- Patent
- T.A. Japanese
- ICM C08F008-28 IC TCS C08F016-38
- 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI PRAI	JP 05239131 JP 1992-23594	A	19930917 19920210	JP 1992-23594	19920210		

CLASS		
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05239131	ICM	C08F008-28

ICS C08F016-38

IPCI C08F0008-28 [ICM,5]; C08F0008-00 [ICM,5,C*]; C08F0016-38 [ICS,5]; C08F0016-00 [ICS,5,C*]

IPCR C08F0008-00 [I,C*]; C08F0008-28 [I,A]; C08F0016-00 [I,C*]; C08F0016-00 [I,A]; C08F0016-38 [I,A]

- AB The particles with storage stability and sound insulation, useful for laminated glass interlayers and binder raw materials, are prepared by (1) forming slurry for core particles containing polyvinyl acetals prepared by acetalizing poly(vinyl alcs.) with C6-10 aldehydes in the presence of acidic catalysts (A) in an aqueous solns. (B) and (2) acetalizing the slurry with C1-4 aldehydes in the presence of A in B to coat the particles with shell layers. Thus, 96.4 g hexanal was stepwise added to a mixture of H2O 2865, poly(vinyl alc.) 224, and 35% HCl 100 g at 15° to give white core particles containing poly(vinyl hexanal) and treated with 60.9 g butylaldehyde in 100 g 35% HCl at 45° for 3 h to obtain white resin particles coated with poly(vinyl acetal) resin outer layers showing blocking resistance after heated at 50° for 500 h and having average particle size 300 µm.
- polyvinyl acetal particle blocking resistance; laminated glass binder polyvinyl acetal; vinyl acetal resin sound insulation; adhesive polyvinyl acetal resin particle
 - Sound insulators
- (laminated glass, containing vinvl acetal polymer interlayers, as binders) Glass, oxide RL: USES (Uses)
- (sound-insulating, vinyl acetal polymer interlayers for, as binders) Vinyl acetal polymers
- RL: USES (Uses)

(butyrals, core-shell structure particles containing, with storage stability and sound insulation)

Vinvl acetal polymers

RL: USES (Uses)

(hexanals, core-shell structure particles containing, with storage stability and sound insulation)

66-25-1D, Hexylaldehyde, acetals with poly(vinyl alc.)

RL: USES (Uses)

(core-shell structure particles containing, with storage stability and sound insulation)

- L16 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1993:413995 CAPLUS
- 119:13995 DN
- OREF 119:2599a,2602a
- Entered STN: 10 Jul 1993

- Aqueous ceramic binders
- Sakashita, Katsuaki; Masaoka, Tsunehiro; Myake, Yoshitaka TN
- PA Sekisui Chemical Co. Ltd., Japan
- SO Jpn. Kokai Tokkvo Koho, 3 pp. CODEN: JKXXAF
- DT Pat.ent.
- LA Japanese
- IC ICM C04B035-00
- CC 57-2 (Ceramics)
 - Section cross-reference(s): 38

IPCR

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI JP 05043303	A	19930223	JP 1991-197765	19910807		
JP 2965393	B2	19991018				
PRAI JP 1991-197765		19910807				

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES JP 05043303 ICM C04B035-00 IPCI C04B0035-00 [ICM, 5]

C04B0035-63 [I,C*]; C04B0035-632 [I,A]; C04B0035-00 [I,C*]; C04B0035-00 [I,A]

AB The binders comprise water-soluble polyvinyl acetal resins and glycols having b.p. ≥230° as main components. Thus, an Al2O3 ceramic green sheet prepared using the binders

- containing glycerin showed excellent rupture strength and high elongation. ceramic binder aq polymer; polyvinyl acetal binder ceramic; glycol ceramic binder
- тт Glycols, uses
 - Vinyl acetal polymers

RL: USES (Uses)

(binders containing, aqueous, for ceramics)

Ceramic materials and wares (manufacture of, binders for, aqueous mixts. containing glycols and

polyvinyl acetals as)

Vinyl acetal polymers

RL: USES (Uses)

(butyrals, binders containing, aqueous, for ceramics)

107-21-1, Ethylene glycol, uses 111-46-6, 56-81-5, Glycerin, uses Diethylene glycol, uses RL: USES (Uses)

(binders containing, aqueous, for ceramics) 1344-28-1, Alumina, uses

RL: USES (Uses)

(ceramic greens, binders for)

L16 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

- AN 1990:180199 CAPLUS
- DN 112:180199
- OREF 112:30499a,30502a
- ED Entered STN: 12 May 1990
- Manufacture of poly(vinyl acetal) resins
- TN Asahina, Kenichi; Sakashita, Katsuaki
- PA
- Sekisui Chemical Co. Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 7 pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM C08F008-28 ICS C08F016-38

CC 35-8 (Chemistry of Synthetic High Polymers) FAN.CNT 1

KIND DATE APPLICATION NO. DATE PI JP 01318008 A 19891222 19891222 JP 1988-148997 19880616 JP 2592912 B2 19970319 PRAI JP 1988-148997 19880616 CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES JP 01318008 ICM C08F008-28 ICS C08F016-38 IPCI C08F0008-28 [ICM, 4]; C08F0008-00 [ICM, 4, C*]; C08F0016-38 [ICS, 4]; C08F0016-00 [ICS, 4, C*] IPCR C08F0008-00 [I,C*]; C08F0008-28 [I,A]; C08F0016-00 [I,C*]; C08F0016-38 [I,A]

AB The title resins with high acetalization degree and narrow particle size distribution are manufactured by reaction of poly(vinyl alc.) (I) and MeCHO (II) in aqueous phases in the presence of acid catalysts including the following two steps; 1) 0.002-0.2 mol (based on 2 mol vinyl alc. unit) C≥3 aldehydes are added at the same time or before mixing all of II with I, and 2) acetals are precipitated by reaction of I, II, and C≥3 aldehydes and heated at 40-75°. Thus, 220 g I (d.p. 2400, saponification degree 98.8 mol%) was dissolved in 2810 g water, mixed with 645 g 35% agueous HCl at 20°, 3.6 g PrCHO and 143 g II were added to the solution in this order at 10°, then the solution was heated at 60° for 2 h to give finely powdered poly(vinyl acetal) resin with acetalization degree 75.7 mol%, average particle size 40 µm containing 0.05% ≥100 µm particles and 0.1% ≤10 μm particles.

- ST polyvinyl acetal resin particle; polyvinyl
- alc acetaldehyde reaction
- Vinyl acetal polymers ΙT

PATENT NO.

RL: IMF (Industrial manufacture); PREP (Preparation)

(acetal butyrals, manufacture of, finely powdered, with high acetalization degree and narrow particle size distribution)

Vinyl acetal polymers

RL: IMF (Industrial manufacture); PREP (Preparation)

(acetal cyclohexanals, manufacture of, finely powdered, with high acetalization

degree and narrow particle size distribution)

Vinvl acetal polymers

RL: IMF (Industrial manufacture); PREP (Preparation)

(acetal ethylhexanals, manufacture of, finely powdered, with high acetalization

degree and narrow particle size distribution)

Vinvl acetal polymers

RL: IMF (Industrial manufacture); PREP (Preparation)

(acetal propionals, manufacture of, finely powdered, with high acetalization degree and narrow particle size distribution)

123-05-7DP, cyclic acetals with poly(vinyl alc.) and acetaldehyde 2043-61-0DP, Cyclohexanecarboxaldehyde, cyclic acetals with poly(vinyl alc.) and acetaldehyde

RL: IMF (Industrial manufacture); PREP (Preparation)

(manufacture of, finely powdered, with high acetalization degree and narrow particle size distribution)

=> d his

(FILE 'HOME' ENTERED AT 10:55:14 ON 22 SEP 2008)

FILE 'CAPLUS' ENTERED AT 10:55:43 ON 22 SEP 2008

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E US2006192180/PN
                E US20060192180/PN
              1 S E3
     FILE 'REGISTRY' ENTERED AT 10:58:28 ON 22 SEP 2008
              1 S 7440-02-0/RN
L3
              1 S 12047-27-7/RN
L4
              1 S 24937-78-8/RN
     FILE 'CAPLUS' ENTERED AT 11:02:01 ON 22 SEP 2008
L_5
           428 S POLYVINYL ACETAL RESIN#
                E ICHITANI MOTO/AU
L6
             51 S E4
L7
              6 S L5 AND L6
L8
           6689 S CONDUCTIVE PASTE#
1.9
              6 S L5 AND L8
     FILE 'REGISTRY' ENTERED AT 11:13:44 ON 22 SEP 2008
               E LI DAIZO/CN
     FILE 'CAPLUS' ENTERED AT 11:13:45 ON 22 SEP 2008
               E LI DAIZO/AU
              1 S E4
L11
             31 S E5
                E OCHITANI YUKIO/AU
             39 S E3
                E TAKAHASHI HIDEYUKI/AU
L13
            659 S E3
               E SAKASHITA KATSUAKI/AU
T.14
             31 S E3
L15
             9 S (L11 OR L12 OR L13 OR L14) AND L5
L16
             6 S L15 NOT L9
=> s modified polyvinyl acetal resin#
        636959 MODIFIED
        107856 POLYVINYL
         51840 ACETAL
        830679 RESIN#
            13 MODIFIED POLYVINYL ACETAL RESIN#
                 (MODIFIED (W) POLYVINYL (W) ACETAL (W) RESIN#)
=> d 1-13
L17 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    2008:769897 CAPLUS
DN
     149:55302
ΤТ
    Modified polyvinyl acetal resins
     and their coating, electrically conductive, and ceramic pastes
     Ichitani, Motokuni
TN
PA
     Sekisui Chemical Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 13pp.
SO
     CODEN: JKXXAF
DT
    Patent
LA
    Japanese
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                          APPLICATION NO. DATE
PI JP 2008143922
                        A
                                20080626
                                           JP 2006-328828
                                                                   20061205
PRAI JP 2006-328828
                                20061205
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L17 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN AN 2006:1088833 CAPLUS

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DN 145:407699
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- TI Sublimation-type thermal-transfer printing material and image receiving sheet
- IN Shiota, Satoshi; Yoshida, Kazuya; Yuki, Masahiro; Takahashi, Toru
- PA Dainippon Printing Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 23pp.
- CODEN: JKXXAF DT Patent
- LA Japanese
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	JP 2006281446	A	20061019	JP 2005-100444	20050331		
PRAI	JP 2005-100444		20050331				

- L17 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:30448 CAPLUS
- DN 144:130575
- TI Soft-modified polyvinyl acetal
- resins
- IN Lumpp, Andreas
- PA Wacker Polymer Systems Gmbh & Co. KG, Germany
- SO PCT Int. Appl., 14 pp. CODEN: PIXXD2
- DT Patent
- LA German
- FAN.CNT 1

PAN.	PAT									APPLICATION NO.								
PI									WO 2005-EP6819									
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	ΚP,	KR,	ΚZ,
			LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
			NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
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		1763								EP 2005-768177					20050623			
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		2007						2007										
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PKAI		2004			3196													
	WO	2005	-EP6	813		W		2005	0623									

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L17 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2005:74133 CAPLUS
- DN 142:156879
- TI Modified polyvinyl acetal binder resin for coating paste with good

applicability

- Ichitani, Motokuni; Ii, Daizo; Ochitani, Yukio; Takahashi, Hideyuki; TN Sakashita, Katsuaki
- PA Sekisui Chemical Co., Ltd., Japan
- SO PCT Int. Appl., 39 pp. CODEN: PIXXD2
- DT Patent
- LA Japanese

FAN.		1	_															
		TENT I				KIN						LICAT					ATE	
PI												2004-					0040	
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		RW:										, SL,						
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	JP	2003	-328	163		A		2003	0919									
	JP	2004 2004 2004	-790	82		A		2004	0318									
	JP	2004	-790	83		A		2004	0318									
	UP WO	2004	- TDG:	127		W		2004	0412									
RE C										ES A	VAT	LABLE	FOR	THI	S RE	CORD		
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L17 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2003:262135 CAPLUS DN 138:274120
- TI Modified polyvinyl acetal resin
- IN Miyake, Yoshitaka; Sawada, Masakazu
- PA Sekisui Chemical Co., Ltd., Japan SO
 - PCT Int. Appl., 74 pp. CODEN: PIXXD2
- DT Patent LA Japanese
- FAN.CNT 1 PATENT NO KIND DATE APPLICATION NO DATE

						11211		DILLE				10111	1011					
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PI	WO	2003	0281	43		A1		2003	0403	1	WO 2	002-	JP96	69		2	00209	920
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KΡ,	KR,	KΖ,	LC,	LK,	LR,	LS,
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	PL,

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PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002330316 A1 20030407 AU 2002-330316
                                                                    20020920
     JP 2003183325
                         A
                               20030703 JP 2002-274605
                                                                   20020920
     JP 4133158
                        B2 20080813
A1 20040616 EP 2002-765606
     EP 1429400
                                                                    20020920
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     US 20040260020 A1 20041223 US 2004-490037 20040730

JP 2008156632 A 20080710 JP 2007-318385 20071210
PRAI JP 2001-289367 A
                               20010921
                              20010921
     JP 2001-289368
                         A
    JP 2002-274605 A3
WO 2002-JP9669 W
                        A3 20020920
W 20020920
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L17 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    2001:252997 CAPLUS
DN
    134:282203
   Curable resin compositions with good curability and film forming
    properties
TN
     Tanaka, Toshiyuki; Toda, Atsushi
PA Mitsubishi Chemical Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
FAN.CNT 3
     PATENT NO. KIND DATE
    PATENT NO.
                                          APPLICATION NO. DATE
                        --- ----- ------
PΤ
    JP 2001098165
                              20010410 JP 2000-228828 20000728
    US 6555617 B1 20030429 US 2000-628321 20000728 US 62030130435 A1 20030710 US 2002-290515 20021108 US 6737474 B2 20040518
PRAI JP 1999-214935
    JP 1999-214935 A 19990729
JP 1999-214936 A 19990729
JP 1999-216321 A 19990730
US 2000-628321 A1 20000728
L17 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    1999:449267 CAPLUS
   131:95958
DN
    Anisotropic electrically conductive film containing side chain-
    modified polyvinyl acetal resin
    Sakurai, Makoto; Matsuse, Takahiro; Kotsubo, Hidefumi; Miura, Akio;
IN
    Morimura, Yasuhiro
PA
    Bridgestone Corp., Japan
   Jpn. Kokai Tokkyo Koho, 6 pp.
    CODEN: JKXXAF
    Patent
T. Z
    Japanese
FAN.CNT 1
     PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 11195325 A 19990721
JP 3922321 B2 20070530
PRAI JP 1998-12053 19980106
                                           JP 1998-12053
                                                                   19980106
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L17 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:293246 CAPLUS
DN 129:10659
OREF 129:2219a,2222a
TI Recording material for aqueous ink
IN Miyake, Yoshitaka; Kamiyama, Ryuji
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkvo Koho, 9 pp.
    CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1
RIND DATE APPLICATION NO.

PI JP 10119421 A 19980512 JP 1996-282574
JP 3720929 R2 2005-1320
                      KIND DATE APPLICATION NO.
                                                                   DATE
                                                                    19961024
PRAI JP 1996-282574
                                19961024
L17 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
    1996:731963 CAPLUS
AN
    126:35774
DN
OREF 126:7113a,7116a
TI Ceramic slurries for forming green sheets
IN Myake, Yoshitaka; Kamyama, Takashi
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
    CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 08259334 A 19961008 JP 1995-67488 19950327
JP 3276261 B2 20020422
                        A 19961008 JP 1995-67488
B2 20020422
    JP 3276261
PRAI JP 1995-67488
                                19950327
L17 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1996:144865 CAPLUS
DN 124:189570
OREF 124:34827a,34830a
TI Ink ribbon for thermal sublimation transfer process
IN Shinohara, Satoru
PA Sony Corp., Japan
SO Eur. Pat. Appl., 22 pp.
    CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1
      PATENT NO. KIND DATE APPLICATION NO. DATE
     PATENT NO.
PI EP 687574 A2 19951220
EP 687574 A3 19960313
EP 687574 B1 19980916
R: DE, FR, GB
                                            EP 1995-109361 19950616
JP 08002126 A 19960109 JP 1994-159238 US 5672561 A 19970930 US 1995-474149 PRAI JP 1994-159238 A 19940617
                                                                    19940617
                                                                    19950609
L17 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
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AN 1994:496064 CAPLUS DN 121:96064

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OREF 121:17035a,17038a
TI Photosensitive composition for photosensitive printing plate
IN Sekva, Toshuki
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 30 pp.
   CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1
                    KIND DATE APPLICATION NO.
   PATENT NO.
                    ---- ------
                          19930702 JP 1991-333542
PI JP 05165206
                     A
                                                          19911217
PRAI JP 1991-333542
                           19911217
L17 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
   1982:532310 CAPLUS
DN 97:132310
OREF 97:21899a,21902a
    Intermediate films for safety glass
PA
   Kuraray Co., Ltd., Japan
   Jpn. Kokai Tokkyo Koho, 7 pp.
SO
   CODEN: JKXXAF
DT
   Patent
LA
   Japanese
      .... NO. KIND DATE
FAN.CNT 1
                    AIND DATE APPLICATION NO.
    PATENT NO.
                                                         DATE
   JP 57077051
                     A 19820514
                                    JP 1980-154141
                                                         19801031
    JP 02010785
                     B 19900309
PRAI JP 1980-154141
                            19801031
L17 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1951:11991 CAPLUS
    45:11991
DN
OREF 45:2122a-b
TI Organopolysiloxane-insulated copper conductor
IN Mathes, Kenneth N.
PA General Electric Co.
DT Patent
T.A
   Unavailable
FAN.CNT 1
                KIND DATE APPLICATION NO. DATE
    PATENT NO.
                     ____
PI US 2523037
                           19500919 US 1946-688319 19460803
=> d 1-13 a11
L17 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    2008:769897 CAPLUS
DN
    149:55302
ED
    Entered STN: 26 Jun 2008
    Modified polyvinyl acetal resins
    and their coating, electrically conductive, and ceramic pastes
IN
    Ichitani, Motokuni
PA
    Sekisui Chemical Co., Ltd., Japan
SO
   Jpn. Kokai Tokkyo Koho, 13pp.
    CODEN: JKXXAF
DT
    Patent
LA Japanese
CC 38-3 (Plastics Fabrication and Uses)
    Section cross-reference(s): 76
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FAN.CNT 1 PATENT NO.				APPLICATION NO.	DATE
	22	A		JP 2006-328828	20061205
	CLASS	PATENT	FAMILY CLASS	SIFICATION CODES	
JP 2008143922	IPCI	[I,A];		C08F0008-00 [I,C*]; [I,A]; C09D0129-14 [
	FTERM	4J038/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I 4J100/I	HA316; 4J038 MA20; 4J038/1 AD02S; 4J100 AG03P; 4J100 AG03P; 4J100 AK32Q; 4J100 BA03T; 4J100 BC59H; 4J100/1 HA43; 4J100/1 HA43; 4J100/1 JA44; 4J100/1	/HA066; 4J038/HA186; /HA436; 4J038/HA186; PB09; 4J100/AR020; 4J. /AF15T; 4J100/AF16T; /AG04P; 4J100/AG06P; /AJ100; 4J100/AG06P; /AM100; 4J100/AM150; /AM020; 4J100/AM150; /AM020; 4J100/AM33; 4J1 /AM16H; 4J100/AM33; 4J1 /AM16H; 4J100/HC17; 4J100/HC17; 4J1 /AM16H; 4J100/HC17; 4J100/HC	JJ038/KA06; 100/AA02R; JJ100/AG02P; JJ100/AG02P; JJ100/AJ02Q; JJ100/BA03H; JJ100/BC43T; 100/CA31; 00/HA09; 00/HA09; 00/JA01; JJ1/DA05;

The invention relates to title resins, useful for multilayer ceramic AB capacitors, with content of ethylene, pendant OH, and pendant CO2H, resp., 1-20, 15-40, and 0.01-10 mol% and degree of saponification and acetalization, resp., ≥80 and 40-80 mol% manufactured by acetalization of modified vinyl alc. polymers with aldehydes. Thus, a conductive paste containing a modified polyvinyl butyral manufactured from a saponified ethylene-vinyl

acetate

copolymer and a saponified itaconic acid-vinyl acetate copolymer showed good screen printability.

ST screen printability multilayer ceramic capacitor polyvinyl butyral; sapond ethylene vinyl acetate copolymer polyvinyl butyral; polyvinyl butyral sapond itaconic acid vinyl acetate copolymer

Electrically conductive pastes ΙT

(modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

Polyvinyl butyrals

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for

multilaver ceramic capacitors) Aldehydes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

Ceramic capacitors

(multilayer; modified polyvinyl butyral conductive and ceramic pastes for multilaver ceramic capacitors)

Ceramic coatings

Coating materials

(pastes; modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

24937-78-8DP, Ethylene-vinyl acetate copolymer, saponified, acetal with butyraldehyde 43158-52-7DP, Itaconic acid-vinyl acetate copolymer, saponified, acetal with butyraldehyde

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

IT 75-07-0, Acetaldehyde, reactions 123-72-8, Butyraldehyde RL: RCT (Reactant); RACT (Reactant or reagent)

(modified polyvinyl butyral conductive and ceramic pastes for multilayer ceramic capacitors)

- L17 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:1088833 CAPLUS
- DN 145:407699
- ED Entered STN: 19 Oct 2006
- ${\tt TI}$ Sublimation-type thermal-transfer printing material and image receiving sheet
- IN Shiota, Satoshi; Yoshida, Kazuya; Yuki, Masahiro; Takahashi, Toru
- PA Dainippon Printing Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 23pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese
- CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2006281446 PRAI JP 2005-100444 CLASS	A	20061019 20050331	JP 2005-100444	20050331
PATENT NO. CLA	SS PATENT	FAMILY CLAS	SSIFICATION CODES	
JP 2006281446 IPG	[I,A]; R B41M00	B41M0005-39]; B41M0005-50 [I,A]; 92 [I,A]; B41M0005-26 ; B41M0005-382 [I,A]; 0 [I,C]; B41M0005-50	[I,C*] B41M0005-392

FTERM 2H111/BA03; 2H111/BA53; 2H111/BA55; 2H111/CA03;

B41M0005-52 [I,A]

2H111/CA30; 2H111/CA33

GI

Ι

- AB The sheet comprises a support having a dye receiving layer containing modified polyvinyl acetal resin I (X $_{\rm H}$, acetyl; Y = urethane group OCONHR'; R' = organic group; 50< l <85; 10< m <50; 0< n <30 mol%). The material comprises the sheet and sublimation thermal-transfer printing material with dye layer containing polyester with bisphenol skeleton. The material is suited for high speed printing, giving high d. images without adhesion of the material and the sheet.
 - ST thermal transfer printing image receptor polyvinyl acetal; sublimation thermal transfer material polyester dye layer
 - IT Polyesters, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye layer; sublimation-type thermal transfer printing material and image receiving sheet)

тт Polyvinyl acetals

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(modified, dye receiving layer; sublimation-type thermal transfer printing material and image receiving sheet)

Thermal-transfer printing materials

(receptors; sublimation-type thermal transfer printing material and image receiving sheet)

IT Thermal-transfer printing materials

(sublimation; sublimation-type thermal transfer printing material and image receiving sheet)

29964-38-3P 116164-24-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye layer; sublimation-type thermal transfer printing material and image receiving sheet)

112-96-9DP, Octadecyl isocyanate, reaction products with polyvinyl acetal 4747-74-4DP, reaction products with polyvinyl acetal

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (dye receiving layer; sublimation-type thermal transfer printing

material and image receiving sheet)

- L17 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:30448 CAPLUS
- 144:130575 DN
- ED Entered STN: 12 Jan 2006
- ΤI Soft-modified polyvinyl acetal resins
- IN Lumpp, Andreas
- PA Wacker Polymer Systems Gmbh & Co. KG, Germany
- SO PCT Int. Appl., 14 pp.
- DT Patent
- LA German
- CODEN: PIXXD2 IC ICM C08F008-28
 - ICS C08F008-14; C08F218-10; C08F216-06
- CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35 FAN.CNT 1																		
27114			KIND DATE				APPLICATION NO.						DATE					
PI	WO 2006002831				A1 20060112			WO 2005-EP6819						20050623				
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,
			LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
			NG,	NΙ,	NO,	ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
			SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
			ZA,	ZM,	zw													
		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
			IS,	ΙT,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,
			CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,	GM,
								SD,	SL,	SZ,	ΤZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,
						ΤJ,												
		1020						2006			DE 2						0040	
		1763						2007			EP 2	005-	7681	77		2	0050	623
	EP	1763	544			B1		2007	0815									

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             IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
     CN 1961008
                        A
                             20070509 CN 2005-80017493 20050623
     AT 370166
                               20070915
                                          AT 2005-768177
                                                                  20050623
                         т
                                                                  20050623
                        т
                              20080214 JP 2007-518514
     JP 2008504415
     TW 265933
                              20061111 TW 2005-94121730
                                                                  20050628
                        В
US 20070260021 A1 20071108 US 2006-570145
IN 2006004820 A 20071005 IN 2006-CN4820
PRAI DE 2004-102004031969 A 20040701
                                                                  20061207
                                                                  20061229
     WO 2005-EP6819
                        W
                              20050623
CLASS
 PATENT NO.
               CLASS PATENT FAMILY CLASSIFICATION CODES
 WO 2006002831
               TCM
                        C08F008-28
                 TCS
                        C08F008-14; C08F218-10; C08F216-06
                 TPCT
                        C08F0008-28 [ICM, 7]; C08F0008-14 [ICS, 7]; C08F0008-00
                        [ICS,7,C*]; C08F0218-10 [ICS,7]; C08F0218-00
                        [ICS,7,C*]; C08F0216-06 [ICS,7]; C08F0216-00 [ICS,7,C*]
                 IPCR
                        C08F0008-00 [I,C*]; C08F0008-14 [I,A]; C08F0008-28
                        [I,A]; C08F0216-00 [I,C*]; C08F0216-06 [I,A];
                        C08F0218-00 [I,C*]; C08F0218-10 [I,A]
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                        C08F008/12+218/08; C08F008/12+218/10;
                        C08F008/28+216/06; M08F; M08F
 DE 102004031969 IPCI
                        C08F0016-38 [I.A]; C08F0016-06 [I.A]; C08F0016-00
                        [I,C*]; C08F0020-10 [I,A]; C08F0020-00 [I,C*];
                        C08F0018-08 [I,A]; C08F0018-00 [I,C*]; C08F0008-12
                        [I,A]; C08F0008-14 [I,A]; C08F0008-00 [I,C*];
                        H04R0007-00 [I,A]; B65D0065-42 [I,A]; B65D0065-38
                        [I,C*]; C09D0011-02 [I,A]; C09D0129-14 [I,A];
                        C09D0129-06 [I,A]; C09D0129-00 [I,C*]; C09D0131-04
                        [I,A]; C09D0131-00 [I,C*]
                 IPCR
                       B65D0065-38 [I,C]; B65D0065-42 [I,A]; C08F0008-00
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                        C08F0008-28 [I,A]; C08F0016-00 [I,C]; C08F0016-06
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                        C08F0018-08 [I,A]; C08F0020-00 [I,C]; C08F0020-10
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                        C08F0218-00 [I,C*]; C08F0218-10 [I,A]; C09D0011-02
                        [I,C]; C09D0011-02 [I,A]; C09D0129-00 [I,C];
                        C09D0129-06 [I,A]; C09D0129-14 [I,A]; C09D0131-00
                        [I,C]; C09D0131-04 [I,A]; H04R0007-00 [I,C];
                        H04R0007-00 [I.A]
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                        C08F008/12+218/08; C08F008/12+218/10; C08F008/28+216/06
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 EP 1763544
                 IPCI
                        [I,A]; C08F0216-06 [I,A]; C08F0008-00 [I,C];
                        C08F0216-00 [I,C]; C08F0218-00 [I,C]
                 TPCR
                        C08F0008-00 [I,C]; C08F0008-28 [I,A]; C08F0008-14
                        [I,A]; C08F0216-00 [I,C]; C08F0216-06 [I,A];
                        C08F0218-00 [I,C]; C08F0218-10 [I,A]
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                        C08F008/12+218/08; C08F008/12+218/10;
                        C08F008/28+216/06; M08F; M08F
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                 IPCI
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                        [I,C*]; C08F0218-10 [I,A]; C08F0218-00 [I,C*];
                        C08F0216-06 [I,A]; C08F0216-00 [I,C*]
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                        C08F0218-00 [I,C*]; C08F0218-10 [I,A]
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                       C08F008/28+216/06; M08F; M08F
 AT 370166
                IPCI
                       C08F0008-00 [I,C]; C08F0008-28 [I,A]; C08F0008-14
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                        C08F0218-00 [I,C]; C08F0218-10 [I,A]
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                        C08F0008-00 [I,C]; C08F0008-28 [I,A]; C08F0008-14
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                        C08F0218-00 [I,C]; C08F0218-10 [I,A]
                 ECLA
                        C08F008/12+218/08; C08F008/12+218/10;
                        C08F008/28+216/06: M08F: M08F
JP 2008504415
                        C08F0008-28 [I,A]; C08F0008-12 [I,A]; C08F0008-00
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                        [I,C*]; C09D0011-10 [I,A]; C09D0129-14 [I,A];
                        C09D0129-00 [I,C*]; C09D0005-00 [I,A]
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                        C08F0216-06 [I,A]; C08F0218-00 [I,C*]; C08F0218-10
                        [I,A]; C09D0005-00 [I,C]; C09D0005-00 [I,A];
                        C09D0011-10 [I,C]; C09D0011-10 [I,A]; C09D0129-00
                        [I,C]; C09D0129-14 [I,A]
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                        C08F008/12+218/08; C08F008/12+218/10;
                        C08F008/28+216/06; M08F; M08F
                 FTERM 4J038/CE061; 4J038/JA19; 4J038/KA06; 4J039/AD06;
                        4J039/AD07; 4J039/BC07; 4J039/BC08; 4J039/BE12;
                        4J100/AF15P; 4J100/AF17P; 4J100/AG04S; 4J100/AG06R;
                        4J100/AG24Q; 4J100/AJ02T; 4J100/BA16P; 4J100/BA16Q;
                        4J100/BA16R; 4J100/BA16S; 4J100/BA27P; 4J100/BA27Q;
                        4J100/BA27R; 4J100/BA27S; 4J100/CA03; 4J100/CA06;
                        4J100/CA31; 4J100/DA25; 4J100/HA09; 4J100/HA56;
                        4J100/HC27; 4J100/JA05; 4J100/JA07
TW 265933
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                        C08F0016-00 [I,C]; C08F0016-38 [I,A]; B65D0065-38
                 TPCR
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                        C08F0008-12 [I,A]; C09D0129-00 [I,C]; C09D0129-14 [I,A]
US 20070260021
                IPCI
                        C08F0002-06 [I,A]; C08F0002-04 [I,C*]
                 NCL
                        525/451.000
 IN 2006CN04820 IPCI
                       C08F0218-10 [ICM, 7]; C08F0218-00 [ICM, 7, C*]
    The invention relates to soft-modified polyvinyl
     acetal resins which can be obtained by saponification of
     copolymers of vinyl acetate and one or several tertiary vinyl esters of
     C9-15 α-branched monocarboxylic acids containing 5 - 60 percent by weight
     tertiary vinyl ester, in relation to the total weigh of the monomers,
     followed by acetalization of the saponification products which comprise vinyl
alc.
     with the aid of one or several C1-6 aldehydes.
     polyvinyl acetal resin acetalization tertiary vinyl ester monocarboxylic
     Primers (paints)
        (anticorrosive; soft-modified polyvinyl
        acetal resins)
     Sound and Ultrasound
        (films; soft-modified polyvinyl acetal
        resins)
     Binders
        (for ceramics or glass fibers; soft-modified
        polyvinyl acetal resins)
        (printing; soft-modified polyvinyl acetal
        resins)
     Acetalization
     Ceramics
     Plastic films
     Saponification
        (soft-modified polyvinyl acetal
        resins)
    Polyvinyl acetals
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (soft-modified polyvinyl acetal
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resins)

- IT Glass fibers, uses
 - RL: TEM (Technical or engineered material use); USES (Uses) (soft-modified polyvinyl acetal

resins)

- IT 123-72-8DP, Butyraldehyde, saponifying polyvinyl acetals 9070-52-4DP, VeoVa 10-vinyl acetate copolymer, saponified with butyraldehyde 103937-64-0DP, VeoVa 9-vinyl acetate copolymer, saponified with butyraldehyde
 - RL: IMF (Industrial manufacture); PREP (Preparation)

(soft-modified polyvinyl acetal resins)

- RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE (1) Wacker-Chemie Gmbh; EP 1180529 A 2002 CAPLUS
- (2) Wacker Polymer Systems Gmbh & Co Kg; DE 10242417 A1 2004 CAPLUS
- L17 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2005:74133 CAPLUS
- DN 142:156879
- D Entered STN: 28 Jan 2005
- II Modified polyvinyl acetal binder resin for coating paste with good applicability
- IN Ichitani, Motokuni; Ii, Daizo; Ochitani, Yukio; Takahashi, Hideyuki; Sakashita, Katsuaki
- PA Sekisui Chemical Co., Ltd., Japan
- SO PCT Int. Appl., 39 pp.
- CODEN: PIXXD2
- DT Patent
- LA Japanese
- IC ICM C08F008-48 ICS C09D129-14
 - 37-3 (Plastics Manufacture and Processing)
- Section cross-reference(s): 38, 74, 76

FAN	.CNT	1

	PATENT NO.									APPLICATION NO.						DATE		
PI									WO 2004-JP9127									
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JP 2004-79082 A 20040318
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                       5E082/EE04; 5E082/EE23; 5E082/EE35; 5E082/FF05;
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US 20060192180 TPCT
                      H01B0001-12 [T.A]
                NCL.
                      252/500.000
                ECLA
                       C08F008/28+216/06
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AB A modified polyvinyl acetal with excellent dispersibility for inorg. powders is useful for a binder resin for coating pastes, a conductive paste, a ceramic paste or a glass paste for use in, e.g., display panel or

semiconductor device fabrication, etc. The modified polyvinyl acetal comprises a vinyl ester unit, a vinyl alc. unit, an α -olefin unit and an acetal unit. Thus, acetalizing a saponified poly(vinyl alc.) having ethylene unit content 10 mol% and saponification degree 88 mol% with Bu aldehvde gave a modified polyvinyl acetal resin which was kneaded with 2020 SS (Ni powder) and α-terpineol to give a conducting paste. ST elec conducting paste manuf binder modified vinvl acetal resin Aluminoborosilicate glasses RL: MOA (Modifier or additive use); USES (Uses) (lead aluminoborosilicate, powder; manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility) Electrically conductive pastes Semiconductor device fabrication (manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility) Polyvinyl acetals RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (paste containing S-Lec BM-S; manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility) 7440-02-0, 2020SS, uses RL: MOA (Modifier or additive use); USES (Uses) (2020SS, conductive powder; manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility) 12047-27-7, BT 03, uses RL: MOA (Modifier or additive use); USES (Uses) (ceramic powder; manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility) 24937-78-8DP, EVA, saponified, acetal derivs. RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manufacture of modified polyvinyl acetal binder resin for coating paste with good dispersibility) RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD RE (1) Konica Corp; JP 2002283699 A 2002 CAPLUS (2) Kurarav Co Ltd; JP 63-79741 A 1988 CAPLUS (3) Kuraray Co Ltd; JP 63-79752 A 1988 CAPLUS (4) Kuraray Co Ltd; EP 1384731 A1 2004 CAPLUS (5) Kuraray Co Ltd; US 20040024137 A1 2004 (6) Kuraray Co Ltd; JP 200468013 A 2004 L17 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN AN 2003:262135 CAPLUS DN 138:274120 ED Entered STN: 04 Apr 2003 Modified polyvinyl acetal resin IN Miyake, Yoshitaka; Sawada, Masakazu PA Sekisui Chemical Co., Ltd., Japan SO PCT Int. Appl., 74 pp. CODEN: PIXXD2 Patent T.A Japanese ICM H01M010-40 ICS H01M014-00; H01G009-00; H01B001-06; H01L031-04; G01N027-46; C08G065-04 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

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CO, GM, LT, PT, UG, RN: GH, KG, FI, CG, AU 20023303 JP 2003383 JP 4133158 EP 1429400 ER: AT,	43 AG, AL, CR, CU, HR, HU, LU, LV, RO, RU, US, UZ, GM, KE, KZ, MD, FR, GB, CI, CM, 16 BE, CH, SI, LT,	AM, AT, AU, AZ, CZ, DE, DK, DM, ID, IL, IN, IS, MA, MD, MG, MK, SD, SE, SG, SI, VC, VN, YU, ZA, LS, MW, WZ, SD, RU, TJ, TM, AT, GR, IE, IT, LU, GA, GN, GQ, GW, A1 2003040′A 2003040′A 20040616 DE, DK, ES, FR, EK, LV, FI, S, FR, M, MK, LV, FI, S, FR, MK, MA, DE, MA, MA, CAN, CAN, CAN, CAN, CAN, CAN, CAN, CA	3 WO 2002—JP9669 BA, BB, BG, BR, BY, BZ, DZ, EC, EE, ES, FI, GB, KE, KG, KP, KR, KZ, LC, KM, MW, MX, MZ, NO, MZ, SK, SL, TJ, TM, TN, TR, MZ, ZW SL, SZ, TZ, UG, ZM, ZW, BE, BG, CH, CY, CZ, DE, MC, NL, PT, SE, SK, TR, ML, MR, NE, SN, TD, TG AU 2002—330316 JP 2002—765606 GB, GR, IT, LI, LU, NL, CY, AL, TR, BG, CZ, US 2004—490037 JP 2007—318385	20020920 CA, CH, CN, GD, GE, GH, LK, LR, LS, OM, PH, PI, TT, TZ, UA, AM, AZ, BY, DK, EE, ES, BF, BJ, CF, 20020920 20020920 SE, MC, PT,			
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AB
    The resin is obtained by acetalizing a modified polyvinyl alc. containing
     ethylene units randomly arranged in the main chain and having ethylene
     content 1-20 mol% and a degree of saponification ≥ 80 mol%. The resin
     which is excellent in flexibility, adhesion to resin substrates in a
     high-humidity atmospheric, heat resistance, thermal decomposability, moisture
     resistance, and toughness, has a low oxygen permeability and moderate
     adhesive properties, gives a low-viscosity solution having excellent
     long-term viscosity stability; and is used for adhesive compns., inks,
     coating material compns., heat-developable photosensitive materials,
    slurry compns. for ceramic green sheets, and the ceramic green sheets.
    modified polyvinyl acetal resin
     ethylene content sapon degree; acetalization polyvinyl alc aldehyde;
     adhesive ink heat developable photosensitive mat ceramic green sheet
    Adhesives
        (adhesive compns. containing modified polyvinyl
        acetal resins with controlled ethylene content and
        saponification degree)
    Aminoplasts
     Epoxy resins, uses
     Phenolic resins, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        (adhesive compns. containing modified polyvinyl
       acetal resins with controlled ethylene content and
       saponification degree)
     Polyvinyl acetals
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (characteristics and manufacture of modified polyvinyl
       acetal resins with controlled ethylene content and
       saponification degree)
        (inks containing modified polyvinyl acetal
        resins with controlled ethylene content and saponification degree)
     9003-08-1, Melamine resin
     RL: TEM (Technical or engineered material use); USES (Uses)
        (adhesive compns. containing modified polyvinyl
       acetal resins with controlled ethylene content and
       saponification degree)
    9002-89-5, Poly(vinyl alcohol)
     RL: CPS (Chemical process); PEP (Physical, engineering or chemical
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process); PROC (Process)
        (characteristics and manufacture of modified polyvinyl
       acetal resins with controlled ethylene content and
       saponification degree)
    99-98-9, N,N-Dimethyl-p-phenylenediamine 2489-05-6, Silver behenate
    7446-14-2, Lead sulfate 9003-39-8, Polyvinylpyrrolidone
    RL: TEM (Technical or engineered material use); USES (Uses)
        (heat-developable photosensitive materials containing modified
       polyvinyl acetal resins with controlled
       ethylene content and saponification degree)
    75-07-0, Acetaldehyde, processes 123-72-8, n-Butylaldehyde
    RL: CPS (Chemical process); PEP (Physical, engineering or chemical
    process); PROC (Process)
        (reaction products with acid modified poly(vinyl alcs.);
       characteristics and manufacture of modified polyvinyl
       acetal resins with controlled ethylene content and
       saponification degree)
    7647-01-0, Hydrochloric acid, processes
    RL: CPS (Chemical process); PEP (Physical, engineering or chemical
    process); PROC (Process)
        (reaction products with poly(vinyl alc.) and aldehydes; characteristics
       and manufacture of modified polyvinyl acetal
       resins with controlled ethylene content and saponification degree)
    84-74-2, Dibutylphthalate 12047-27-7, Barium titanate, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (slurry compns. for ceramic green sheets containing modified
       polyvinyl acetal resins with controlled
       ethylene content and saponification degree)
RE.CNT 7
             THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Kuraray Co Ltd; JP 63-79741 A 1988 CAPLUS
(2) Kuraray Co Ltd; JP 63-79752 A 1988 CAPLUS
(3) Kuraray Co Ltd; JP 09-77822 A 1997 CAPLUS
(4) Shingijutsu Kaihatsu Jigyodan; JP 62-59951 A 1987 CAPLUS
(5) The Nippon Synthetic Chemical Industry Co Ltd; JP 48-32779 B1 1973 CAPLUS
(6) The Nippon Synthetic Chemical Industry Co Ltd; JP 60-54967 A 1985 CAPLUS
(7) Toyo Seikan Kaisha Ltd; JP 53-65386 A 1978 CAPLUS
L17 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:252997 CAPLUS
DN 134:282203
ED Entered STN: 10 Apr 2001
TI Curable resin compositions with good curability and film forming
    properties
    Tanaka, Toshiyuki; Toda, Atsushi
PA Mitsubishi Chemical Corp., Japan
SO
   Jpn. Kokai Tokkyo Koho, 17 pp.
    CODEN: JKXXAF
    Patent
    Japanese
    ICM C08L101-00
    ICS C08L029-14; C08L063-00; C09D004-02; C09D129-14; C09D163-00;
         C09J004-02; C09J129-14; C09J163-00
   42-9 (Coatings, Inks, and Related Products)
FAN.CNT 3
                                          APPLICATION NO.
    PATENT NO.
                        KIND
                              DATE
                       A
                             20010410
    JP 2001098165
                                          JP 2000-228828 20000728
US 2000-628321 20000728
    US 6555617
                       B1 20030429
    US 20030130435 A1 20030710
                                          US 2002-290515
                                                                 20021108
US 6737474 B2 20040518
PRAI JP 1999-214935 A 19990729
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IN

DT

LA

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JP 1999-214936 A 19990729
JP 1999-216321 A 19990730
US 2000-628321 A1 20000728
CLASS
PATENT NO.
                 CLASS PATENT FAMILY CLASSIFICATION CODES
JP 2001098165 ICM
                        C08L101-00
                 ICS
                        C08L029-14; C08L063-00; C09D004-02; C09D129-14;
                        C09D163-00; C09J004-02; C09J129-14; C09J163-00
                 IPCI
                        C08L0101-00 [ICM, 7]; C08L0029-14 [ICS, 7]; C08L0029-00
                        [ICS, 7, C*]; C08L0063-00 [ICS, 7]; C09D0004-02 [ICS, 7];
                        C09D0129-14 [ICS, 7]; C09D0129-00 [ICS, 7, C*];
                        C09D0163-00 [ICS,7]; C09J0004-02 [ICS,7]; C09J0129-14
                        [ICS,7]; C09J0129-00 [ICS,7,C*]; C09J0163-00 [ICS,7]
                        C08L0101-00 [I,C*]; C08L0101-00 [I,A]; C08L0029-00
                 TPCR
                        [I,C*]; C08L0029-14 [I,A]; C08L0063-00 [I,C*];
                        C08L0063-00 [I,A]; C09D0004-02 [I,C*]; C09D0004-02
                        [I,A]; C09D0129-00 [I,C*]; C09D0129-14 [I,A];
                        C09D0163-00 [I,C*]; C09D0163-00 [I,A]; C09J0004-02
                        [I,C*]; C09J0004-02 [I,A]; C09J0129-00 [I,C*];
                        C09J0129-14 [I,A]; C09J0163-00 [I,C*]; C09J0163-00
                        [I,A]
US 6555617
                 IPCI
                        C08L0029-02 [ICM, 71; C08L0029-00 [ICM, 7, C*1;
                        C08L0063-00 [ICS.7]
                 IPCR
                        B32B0007-12 [I,C*]; B32B0007-12 [I,A]; C08G0059-00
                        [I,C*]; C08G0059-42 [I,A]; C08L0029-00 [I,C*];
                        C08L0029-14 [I,A]; C08L0035-00 [I,C*]; C08L0035-00
                        [I,A]; C08L0063-00 [N,C*]; C08L0063-00 [N,A]
                 NCL
                        525/061.000; 524/413.000; 524/428.000; 524/461.000;
                        524/480.000; 525/454.000; 525/525.000
                        B32B007/12; C08G059/42N; C08L029/14+B4; C08L035/00;
                 ECLA
                        MO8L
US 20030130435 IPCI
                        C08F0120-10 [ICM, 7]; C08F0120-00 [ICM, 7, C*]
                 IPCR
                        B32B0007-12 [I,C*]; B32B0007-12 [I,A]; B32B0017-06
                        [I,C*]; B32B0017-10 [I,A]; C08G0059-00 [I,C*];
                        C08G0059-42 [I,A]; C08L0029-00 [I,C*]; C08L0029-14
                        [I,A]; C08L0035-00 [I,C*]; C08L0035-00 [I,A];
                        C08L0063-00 [N,C*]; C08L0063-00 [N,A]
                 NCL
                        525/330.300; 525/383.000; 525/386.000; 525/061.000;
                        524/413.000; 524/428.000; 524/461.000; 524/480.000;
                        525/454,000; 525/525,000
                 ECLA
                       B32B007/12; B32B017/10G28; C08G059/42N; C08L029/14+B4;
                        C08L035/00: M08L
AB
    The compns. comprise (A) curable resins, (B) curing catalysts and (C)
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curing agents from modified polyvinyl acetal resins having (a) acetal units derived from aromatic aldehydes, aralkyl aldehydes or/and aryl-containing alkenyl aldehydes, 0-85, (b) acetal units derived from HCHO or/and Cl-10 alkyl aldehydes, 0-80, (c) unmodified vinyl alc. units, 0-50, (d) vinyl acetate units 0-30, and (e) dicarboxylic acid vinyl ester units 0-50 mol%, provided that (a+b) \$\pi\$ 0. Thus, mixing Gohsenol NL-05 (a polyvinyl alc.) 100 with phenylacetaldehyde 195, butylaldehyde 33, PhMe 584 and 35% HCl 13.2, heating to 58° over 1.5 h and at 58° for 5 h, cooling to 35°, adding Na acetate 18.26 dissolved in MeOH 535.6 g and working up gave a vinyl acetal resin which was esterified with phthalic anhydride, combined at 1.8 g with Epikote 828 1.2, MEK 9.0 and 1-(2-cyonethyl)-2-ethyl-4-methylimidazole 0.036 g, coated on a Upilex R (polyimide) film and heated at 180° for 2 h to give a coat film with good adhesion.

ST epoxy resin coating phthalated vinyl acetal curing; dicarboxylic acid ester vinyl acetal resin curing epoxy resin

IT Polyvinyl butyrals

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF

(Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(S-Lec B-BL-S; mixed acetals, esters with dicarboxylic anhydride; curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties) Coating materials

2 Codering Maccertain

Crosslinking agents

(curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties)
Epoxy resins, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties)

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(mixed cyclic ethers, esterified with dicarboxylic acids; curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties)

IT 66-77-3DP, 1-Naphthaldehyde, mixed acetal derivs. with poly(vinyl alc.) and other aldehydes, esterified with dicarboxylic anhydride 85-44-9DP, Phthalic anhydride, esters with polyvinyl mixed acetals 100-52-7DP, Benzaldehyde, mixed acetal derivs. with poly(vinyl alc.) and other aldehydes, esterified with dicarboxylic anhydride, uses 104-53-0DP, Benzenepropanal, mixed acetal derivs. with poly(vinyl alc.) and other aldehydes, esterified with dicarboxylic anhydride 110-15-5DP, Succinic acid, esters with polyvinyl mixed acetals 110-16-7DP, Maleic acid, esters with polyvinyl mixed acetals 122-78-1DP, Phenylacetaldehyde, mixed acetal derivs. with poly(vinyl alc.) and other aldehydes, esterified with dicarboxylic anhydride 123-72-8DP, Butylaldehyde, mixed acetal derivs. with poly(vinyl alc.) and other aldehydes, esterified with dicarboxylic anhydride 123-72-8DP, Butylaldehyde, mixed acetal derivs. with poly(vinyl alc.) and other aldehydes, esterified with dicarboxylic anhydride

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties) 4687-94-9, Epoxy Ester 3000A 16969-10-1, Epoxy Ester M 600A 25068-38-6, Epikote 828

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties) 9002-89-5DP, Gohsenol NL-05, mixed acetal derivs., esterified with dicarboxylic anhydride

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(curable resin compns. with good curability and film forming properties)

IT 23996-25-0, 1-(2-Cyanoethyl)-2-ethyl-4-methylimidazole
RL: CAT (Catalyst use); USES (Uses)

(curing accelerators; curable resin compns. containing dicarboxylic acid-esterified mixed polyvinyl acetals with good curability and film forming properties)

- L17 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1999:449267 CAPLUS
- DN 131:95958
- ED Entered STN: 22 Jul 1999

- TI Anisotropic electrically conductive film containing side chainmodified polyvinyl acetal resin
- IN Sakurai, Makoto; Matsuse, Takahiro; Kotsubo, Hidefumi; Miura, Akio; Morimura, Yasuhiro
- PA Bridgestone Corp., Japan
- SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM H01B001-20
- ICS H01B005-16; H05K003-32; G02F001-1345
- CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 11195325		A.	19990721	JP 1998-12053	19980106
JP 3922321		B2	20070530		
PRAI JP 1998-120	53		19980106		
CLASS					
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 11195325	ICM	H01B001	L-20		
	ICS	H01B005	5-16; H05K00	3-32; G02F001-1345	
	IPCI	H01B000)1-20 [I,A];	H01B0005-16 [I,A]; H05	K0003-32
		[I,A];	G02F0001-13	45 [N,A]; G02F0001-13	[N,C*]
	IPCR	G02F000)1-13 [N,C*]	; G02F0001-1345 [N,A];	H01B0001-20
		[I,A];	H01B0001-20	[I,C*]; H01B0005-16 []	[,A];
		H01B000	05-16 [I.C*]	: H05K0003-32 [I.A]; H0	5K0003-32
		[I,C*]			

- AB The film comprises a thermally or photo curable adhesive in which elec. conductive particles are dispersed. The adhesive contains a polyvinyl acetal resin manufactured by acetalification of polyvinyl alc., in which side chains of the resin are substituted with aliphatic unsatd. groups. The film shows elec. conductivity by applying pressure in its thickness direction. The film shows high heat and moisture resistance, excellent elec. conductivity, and durability.
- ST anisotropic elec conductive film polyvinyl acetal; aliph substituted polyvinyl acetal conductive film; polyvinyl butyral modification elec conductive film; adhesive conductive film thermally photo curable
- IT Adhesive

(anisotropic elec. conductive film containing modified polyvinyl acetal resin-based adhesive)

- IT Polyvinyl acetals
 - Polyvinyl butyrals

RL: TEM (Technical or engineered material use); USES (Uses)
(anisotropic elec. conductive film containing modified

polyvinyl acetal resin-based adhesive)

T Films

(elec. conductive; anisotropic elec. conductive film containing modified polyvinyl acetal resin

-based adhesive)

IT Electric conductors

(films; anisotropic elec. conductive film containing modified polyvinyl acetal resin-based adhesive)

TT 79-10-7DP, Acrylic acid, polyvinyl acetal modified with 79-41-4DP, Methacrylic acid, polyvinyl acetal modified with

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(anisotropic elec. conductive film containing modified polyvinyl acetal resin-based adhesive)

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L17 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:293246 CAPLUS
DN
    129:10659
OREF 129:2219a,2222a
ED Entered STN: 20 May 1998
TI Recording material for aqueous ink
IN Miyake, Yoshitaka; Kamiyama, Ryuji
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkvo Koho, 9 pp.
    CODEN: JKXXAF
DT Patent
LA
   Japanese
IC
    ICM B41M005-00
    ICS B05D005-04
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
    PATENT NO.
                                          APPLICATION NO.
                       KIND DATE
                                                                DATE
                       A 19980512 JP 1996-282574
    JP 10119421
JP 3720929
                                                                 19961024
                        B2
                               20051130
PRAI JP 1996-282574
                               19961024
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 10119421 ICM B41M005-00
                TCS
                       B05D005-04
                 IPCI B41M0005-00 [ICM, 7]; B05D0005-04 [ICS, 7]
                 IPCR B41M0005-00 [I,C*]; B41M0005-00 [I,A]; B05D0005-04
                       [I,C*]; B05D0005-04 [I,A]; B41M0005-50 [I,C*];
                       B41M0005-50 [I,A]; B41M0005-52 [I,A]
AB
    The recording material has an ink-receiving layer on a support, wherein
    the ink-receiving layer contains a water-soluble modified
     polyvinyl acetal resin having a hydrophilic
     group such as COOM, SO3M, OSO3M (M = H, Li, Na), etc., and micropowder
    made from materials such as silica, alumina, etc. The recording material
    showed high ink-absorptivity and water fastness.
ST
    ag ink recording material vinyl acetal
IΤ
    Recording materials
       (recording material for agueous ink)
IT Polyvinyl acetals
     Quaternary ammonium compounds, uses
     Sulfonic acids, uses
     RL: DEV (Device component use); USES (Uses)
       (recording material for aqueous ink)
     97-65-4D, Itaconic acid, polymer with polyvinyl acetal 110-16-7D, Maleic
    acid, polymer with polyvinyl acetal 1344-28-1, Alumina, uses 7631-86-9, Silica, uses 14265-44-2, Phosphate, uses
     RL: DEV (Device component use); USES (Uses)
        (recording material for aqueous ink)
L17 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
    1996:731963 CAPLUS
AN
   126:35774
DN
OREF 126:7113a,7116a
ED Entered STN: 13 Dec 1996
TI Ceramic slurries for forming green sheets
IN Myake, Yoshitaka; Kamyama, Takashi
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
    CODEN: JKXXAF
```

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DT Patient
LA
    Japanese
TC
    ICM C04B035-622
    ICS C04B035-632; C08L029-14; C08L033-02; C08L035-00; C08L041-00;
```

C08L067-04

57-2 (Ceramics) Section cross-reference(s): 38

FAN.CNT 1

C04B035-622							
C04B035-632; C08L029-14; C08L033-02; C08L035-00; C08L041-00; C08L067-04							
C04B0035-622 [ICM,6]; C04B0035-632 [ICS,6]; C08L0029-14 [ICS,6]; C08L0033-02 [ICS,6]; C08L0035-00 [ICS,6];							
C08L0041-00 [ICS,6]; C08L0067-04 [ICS,6] C04B0035-622 [I,C*]; C04B0035-622 [I,A]; C04B0035-63							
3							

[I,C*]; C08L0067-00 [I,A]; C08L0067-04 [I,A] AB The slurries contain polyvinyl acetal resin or modified polyvinyl acetal resin having ≥1 of

hydrophilic groups, polycaprolactam or oxidation agent, ceramic powder and plasticizer. The and uniform ceramic green sheets can be obtained.

[I,A]; C08L0035-00 [I,C*]; C08L0035-00 [I,A]; C08L0041-00 [I,C*]; C08L0041-00 [I,A]; C08L0067-00

slurry ceramic green sheet; polyvinyl acetal resin ceramic slurry;

polycaprolactam ceramic slurry

Polyamides, properties

Polyvinyl acetals

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(ceramic slurry containing; ceramic slurries containing polyvinyl acetal resin

and polycaprolactam for forming thin and uniform green sheets) Slurries

(ceramic; ceramic slurries containing polyvinyl acetal resin and polycaprolactam for forming thin and uniform green sheets)

Ceramics

(slurries; ceramic slurries containing polyvinyl acetal resin and polycaprolactam for forming thin and uniform green sheets)

12047-27-7, Barium titanate, properties

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(ceramic powders; in ceramic slurries containing polyvinyl acetal resin and polycaprolactam for forming thin and uniform green sheets)

25038-54-4, Polycaprolactam, properties

RL: PRP (Properties); TEM (Technical or engineered material use); USES

(ceramic slurry containing; ceramic slurries containing polyvinyl acetal resin and polycaprolactam for forming thin and uniform green sheets)

L17 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1996:144865 CAPLUS

DN 124:189570 OREF 124:34827a,34830a

- ED Entered STN: 13 Mar 1996
- TI Ink ribbon for thermal sublimation transfer process
- IN Shinohara, Satoru
- PA Sony Corp., Japan
- SO Eur. Pat. Appl., 22 pp. CODEN: EPXXDW
- DT Patent
- LA English
- IC ICM B41M005-38
- ICS B41M007-00
- C 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

FAN.CNT 1 PATENT NO.		KIND	DATE		DATE
PI EP 687574 EP 687574 EP 687574 R: DE,		A2 A3 B1	19951220 19960313 19980916	EP 1995-109361	19950616
JP 08002126 US 5672561 PRAI JP 1994-159 CLASS		A A A	19960109 19970930 19940617	JP 1994-159238 US 1995-474149	
PATENT NO.	CLASS			IFICATION CODES	
EP 687574 JP 08002126	ICS	B41M005 B41M007 B41M000 [I,C*]; B41M000 [I,C*]; B41M000 B41M000 B41M000 [I,C*]; B41M000	-38 -00 5-38 [ICM,6] 1-00 [I,C*]; B41M0005-34 5-382 [I,A]; B41M0005-40 7-00 [I,A] 34T; B41M00 5-38 [ICM,6] 1-00 [I,C*]; B41M0005-34 5-382 [I,A];	; B41M0007-00 [ICS,6] B41J0031-00 [IC,A]; B [I,C*]; B41M0005-34 B41M0005-395 [I,A]; [I,A]; B41M0007-00; B ; B41J0031-00 [ICS,6] B41J0031-00 [ICS,6] B41J0031-00 [IA]; B [I,C*]; B41M0005-34 B41M0005-395 [I,A]; [I,A]; B41M0007-00 [41M0005-26 [I,A]; B41M0005-40 I,C*]; 41M005/395 41M0005-26 [I,A]; B41M0005-40
US 5672561	ECLA IPCI IPCR	B41M005 B41M000 B41J003 [I,C*]; B41M000 [I,C*]; B41M000	/395; B41M00 5-035 [ICM,6 1-00 [I,C*]; B41M0005-34 5-382 [I,A]; B41M0005-40 7-00 [I,A]	5/34T; B41M007/00C]; B41M0005-38 [ICS,6 B41J0031-00 [I,A]; B [I,C*]; B41M0005-34 B41M0005-395 [I,A]; [I,A]; B41M0007-00 [41M0005-26 [I,A]; B41M0005-40 I,C*];
	ECLA			0.000; 428/913.000; 4 5/34T; B41M007/00C	28/914.000

AB Disclosed is a ink ribbon for thermal sublimation transfer process having ink layer(s) and laminate layer(s) sep. formed on one and the same surface of a substrate. The ink layer(s) contains/contain a releasing resin, preferably a silicone-modified polyvinyl

acetal resin, as the binder. The ink ribbon is

applicable even to printing paper that has not been made releasable or has been made releasable but only slightly, while preventing the hot-sealing of the ink ribbon to the printing paper. The laminate layer(s) of the ink ribbon is/are uniformly transferred onto the dye-receiving layer of printing paper.

ST ink ribbon sublimation transfer printing

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Vinyl acetal polymers
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RL: DEV (Device component use); USES (Uses)

(silicone-modified; ink layer of sublimation transfer ink ribbon) Printing, nonimpact

(sublimation-transfer, ink ribbon for thermal sublimation transfer process)

ΙT Printer ribbons

(thermal-transfer, ink ribbon for thermal sublimation transfer process)

L17 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:496064 CAPLUS

DN 121:96064

OREF 121:17035a,17038a

ED Entered STN: 20 Aug 1994

ΤI Photosensitive composition for photosensitive printing plate

IN Sekya, Toshuki

Fuji Photo Film Co Ltd, Japan PA

Jpn. Kokai Tokkyo Koho, 30 pp. SO CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-021

ICS G03F007-00; G03F007-027; G03F007-031; G03F007-035

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 05165206 PRAI JP 1991-333542 CLASS		A	19930702 19911217	JP 1991-333542	19911217
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 05165206 ICM ICS IPCI		G03F000 G03F000 [ICS,5] G03F000 [I,C*]; G03F000	7-00; G03F00 7-021 [ICM, 7-00 [ICS, 5 1; G03F0007- 7-00 [I,C*] : G03F0007-0 07-027 [I,A]	17-027; G03F007-031; G0 51; G03F0007-016 [ICM, 1]; G03F0007-027 [ICS, 035 [ICS,5]; G03F0007- 21 [I,A]; G03F0007-027 23 [G03F0007-031 [I,C*]; 24 [I,C*]; G03F0007-037	5,C*]; i]; G03F0007-031 032 [ICS,5,C*] 03F0007-016 [I,C*]; G03F0007-031

GI

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AB
    A photosensitive composition contains a diazonium copolymer having repeating
     units (I) and [CH2CR6(W)] (R1, R6 = H, Me; R2 - R5 = H, alkyl alkoxy,
     halo, OH; Y = NH, O, S; X- = anion; W = substituent containing an acidic H),
     polyurethane resin having a substituent containing an acidic H, or a
     modified polyvinyl acetal resin. A
     photosensitive composition contains a photodimerizable crosslinking polymer
     having unsatd, double bonds, a sensitizer, and the above diazonium
     copolymer. A photosensitive composition contains a polymerizable compound
having
     an ethylenic unsatd. bonds, photopolymn. initiator, a polymer, and the
     above diazonium copolymer. These photosensitive compns. provide
     alkali-developable photosensitive printing plates with high sensitivity,
     excellent printing resistance, excellent developability in development
     with an alkali developer, and little diazo residue.
ST
     diazonium copolymer photosensitive compn printing plate; polyurethane
     photosensitive compn printing plate; alkali developable photosensitive
     compn
IT
     Printing plates
        (alkali-developable, photosensitive compns. containing diazonium copolymer
        and polvurethanes for)
     Photoimaging compositions and processes
        (photopolymerizable, alkali-developable, containing diazonium copolymer and
        polyurethanes, for printing plate)
     Urethane polymers, preparation
     RL: PREP (Preparation)
        (preparation of, for photosensitive compns. of printing plate)
     4083-64-1
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (acylation by, of bis(hydroxymethyl)propionic acid-diphenylmethane
        diisocyanate copolymer)
     540-51-2, Ethylene bromohydrin
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hydroxyethylation by, of bis(hydroxymethyl)propionic
        acid-diphenylmethane diisocyanate copolymer)
     156477-30-4
                  156580-62-0 156580-65-3 156580-68-6 156608-03-6
     156646-14-9
     RL: USES (Uses)
        (photosensitive composition containing, for alkali-developable
photosensitive
        printing plate)
     85023-20-7DP, acylated and hydroxyethylated
                                                  141432-31-7P
     149252-24-4DP, product from acid hydrolysis and diazotization
     151483-02-2P
                  152048-37-8P
                                  152048-39-0P 152048-42-5P
                                                                152048-44-7P
     152048-46-9P
                   153991-98-1P
                                  156477-31-5P
                                                156477-32-6P
                                                                156477-33-7P
     156477-34-8P
                   156477-35-9P
     RL: PREP (Preparation)
        (preparation of, photosensitive composition containing, for
alkali-developable
        photosensitive printing plate)
L17 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    1982:532310 CAPLUS
DN
     97:132310
OREF 97:21899a,21902a
ED
    Entered STN: 12 May 1984
    Intermediate films for safety glass
PA
    Kuraray Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 7 pp.
    CODEN: JKXXAF
DT
    Patent
```

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LA Japanese
    C03C027-12; C08F008-12; C09J003-14
TC:
    57-1 (Ceramics)
     Section cross-reference(s): 37
FAN.CNT 1
    PATENT NO.
                       KIND DATE APPLICATION NO. DATE
                             19820514 JP 1980-154141
                       ----
    JP 57077051
JP 02010785
                                                              19801031
                       В
                              19900309
PRAI JP 1980-154141
                              19801031
CLASS
PATENT NO.
              CLASS PATENT FAMILY CLASSIFICATION CODES
JP 57077051
               IC
                      C03C027-12; C08F008-12; C09J003-14
                IPCI     C03C0027-12; C08F0008-12; C08F0008-00 [C*]; C09J0003-14
                IPCR C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C03C0027-12
                       [I,C*]; C03C0027-12 [I,A]; C08F0008-12 [I,A];
                       C08F0008-28 [I,A]; C08F0016-00 [I,C*]; C08F0016-14
                       [I,A]; C08F0016-38 [I,A]; C08F0020-00 [I,C*];
                       C08F0020-52 [I,A]; C08F0026-00 [I,C*]; C08F0026-00
                       [I,A]; C08F0026-02 [I,A]; C08F0216-00 [I,C*];
                       C08F0216-14 [I,A]; C08F0216-38 [I,A]; C08F0220-00
                       [I,C*]; C08F0220-60 [I,A]; C08F0226-00 [I,C*];
                       C08F0226-02 [I.A]; C08F0226-06 [I.A]; C09J0129-00
                       [I,C*]; C09J0129-14 [I,A]
    Films made from cation group-containing modified polyvinyl
    acetal resin are used as intermediate films for safety
     glass. Thus, 100 parts modified polyvinyl butyral resin was mixed with 50
     parts triethylene glycol bis(2-ethylbutyrate) [95-08-9], shaped to a 0.7
     mm-thick film, sandwiched by 2 glass sheets, and pressed at 120°
    and 10 kg/cm2 to give a high-strength safety glass.
    safety glass polymer film
    Vinyl acetal polymers
ΙT
    RL: USES (Uses)
       (butvrals, laminated glass intermediate films)
    Glass, oxide
     RL: USES (Uses)
       (safety, polymer film for)
     95-08-9
     RL: USES (Uses)
        (laminated glass intermediate films)
L17 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
AN
   1951:11991 CAPLUS
DN
    45:11991
OREF 45:2122a-b
ED Entered STN: 22 Apr 2001
TI
    Organopolysiloxane-insulated copper conductor
IN Mathes, Kenneth N.
PA
   General Electric Co.
DT
    Patent
LA
    Unavailable
CC 13 (Chemical Industry and Miscellaneous Industrial Products)
FAN.CNT 1
                                                                       0.3
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PATENT NO.		KIND	DATE	APPLICATION	NO.	DATE
PI US 2523037			19500919	US 1946-6883	319	1946080
CLASS						
PATENT NO.	CLASS	PATENT	FAMILY CLASS	SIFICATION COL	DES	
US 2523037	IPCR		3-46 [I,C*]; H01B0007-29	H01B0003-46	[I,A];	H01B0007-17

NCL 427/058.000; 174/120.000SR; 427/118.000; 427/126.100; 427/203.000; 427/204.000; 428/383.000; 428/391.000

AB A heat- and abrasion-resistant insulated conductor is formed by coating with a hydrocarbon-substituted polysiloxane resin and dusting with a powdered siliceous material to promote the adhesion of an outer coating of modified polyvinyl acetal resin.

ΙT Siloxanes

(copper insulated with)

Insulators (electric)

(siloxanes)

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=>
=> e us20040260020/pn
      1 ÛS20040260018/PN
E1
E2
                US20040260019/PN
           1
E3
           1 --> US20040260020/PN
E4
                US20040260021/PN
           1
E5
           1
                US20040260022/PN
E6
           1
                US20040260023/PN
                US20040260024/PN
E7
           1
E8
           1
                US20040260025/PN
                US20040260026/PN
E9
           1
E10
           1
                US20040260027/PN
E11
                US20040260028/PN
E12
           1
                US20040260029/PN
=> s e3;d all
L18
          1 US20040260020/PN
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L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
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AN 2003:262135 CAPLUS

DN 138:274120

ED Entered STN: 04 Apr 2003 TI Modified polyvinyl acetal resin

IN Miyake, Yoshitaka; Sawada, Masakazu PA Sekisui Chemical Co., Ltd., Japan

SO PCT Int. Appl., 74 pp. CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM H01M010-40

ICS H01M014-00; H01G009-00; H01B001-06; H01L031-04; G01N027-46; C08G065-04

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

FAN.	CNT	1																	
	PATENT NO.					KIND DATE				APPLICATION NO.					DATE				
							_												
PI	PI WO 2003028143				A1 20030403		WO 2002-JP9669				20020920								
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	PL,	
			PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	
			UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW								
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,	
			KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
			FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	
			CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG				
	AU	2002	3303	16		A1		2003	0407		AII 2	002-	3303	16		2	0020	920	

	BE, CH SI, LT 020 32 367 368 605	A 20030703 JP 2002-274605 20020920 B2 20080813 A1 20040616 EP 2002-765606 20020920 , DE, DK, ES, FR, GR, GR, IT, LI, LU, NL, SE, MC, PT, , LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK A1 20041223 US 2004-490037 20040730 < A 20080710 JP 2007-318385 20071210 A 20010921 A3 20020920 W 20020920 PATENT FAMILY CLASSIFICATION CODES
		HOLIVOLO AO
WO 2003028143	ICM ICS	H01M010-40 H01M014-00; H01G009-00; H01B001-06; H01L031-04;
	IPCI	G01N027-46; C08G065-04 H01M0010-40 [ICM,7]; H01M0010-36 [ICM,7,C*];
	IPCR	HOLMOUTO-40 [LOW, /]; HOLMOUTO-36 [LOW, /, C-]; HOLMOUTO-40 [LOW, /]; HOLGOOD9-00 [LOW, 7, C-]; HOLMOUTO-40 [LOW, 7]; HOLGOOD9-00 [LOW, 7]; HOLBOOD1-06 [LOW, 7]; HOLLOOJ31-04 [LOW, 7]; GOINOO27-46 [LOW, 7]; COSFOO08-00 [LOW, 7]; COSFOO08-28 [L, A]; HOLMOOD2-16 [N, C+]; HOLMOOD2-16 [N, A]; HOLMOOD4-62 [N, C+]; HOLMOOD4-62 [N, A]; HOLMOOD6-00 [L, C+]; HOLMOOD6-22 [I, A]; HOLMOOT0-36 [L, C+]; HOLMOOT0-40 [I, A]
	ECLA	C08F008/28+216/06; H01M006/22; H01M010/40B; T01M; T01M; T01M; T01M; T01M; T01M
AU 2002330316	IPCI	H01M0010-40 [ICM,7]; H01M0010-36 [ICM,7,C*]; H01M0014-00 [ICS,7]; H01G0009-00 [ICS,7]; H01B0001-06 [ICS,7]; H01L0031-04 [ICS,7]; C08G0065-04 [ICS,7]; C08G0065-00 [ICS,7,C*]
JP 2003183325	IPCI	C09D0011-10 [I,A]; C09D0129-14 [I,A]; C09D0129-00 [I,C*]; C09D0129-14 [I,A]; C09J0129-00 [I,C*]; G03C0001-498 [I,A]; C08F0008-48 [I,A]; C08F0008-00 [I,C*]
	IPCR	CO4B0035-63 [I,C*]; CO4B0035-632 [I,A]; CO4B0035-622 [I,C*]; CO4B0035-622 [I,A]; CO8F0008-00 [I,C*]; CO8F0008-48 [I,A]; CO8L0029-00 [I,C*]; CO8L0029-14 [I,A]
EP 1429400	IPCI IPCR	H01M002-00 [I,A], C08F0008-00 [I,C]; C08F0008-28 [I,A]; C08F016-00 [I,C]; C08F016-38 [I,A]; H01M002-00 [I,C]; E01M002-16 [I,C]; H01M002-16 [I,C]; H01M002-16 [I,A]; H01M0004-62 [I,A]; H01M0006-00 [I,C]; H01M0006-22 [I,A]; H01M0010-36 [I,C]; H01M010-36 [I,C]; H01M0010-36 [I,C]; H01M0010-36 [I,C]; H01M0010-36 [I,C]; H01M0010-36 [I,C]; H01M0010-36 [I,C]; H01M0010-36 [I,C]; H0
US 20040260020	ECLA IPCI IPCR	H01M006/22; H01M010/40B C08F0008-00 [ICM,7] C08F0008-00 [I,C*]; C08F0008-28 [I,A]; H01M0002-16 [N,C*]; H01M0002-16 [N,A]; H01M0004-62 [N,C*];
	NCL ECLA	H01M0004-62 [N,A]; H01M0006-00 [I,C*]; H01M0006-22 [I,A]; H01M0010-36 [I,C*]; H01M0010-40 [I,A] 525/061.00 [U,A] 6000000000000000000000000000000000000
JP 2008156632	IPCI FTERM	CO8L0029-14 [I,A]; CO8L0029-00 [I,C*]; CO8K0005-103 [II,A]; CO8K0005-00 [I,C*]; CO8K0003-00 [I,A]; CO4B0035-622 [I,A]; CO4B0035-632 [I,A]; CO4B0035-63 [I,C*]; HO1G0004-12 [I,A]; HO1G0004-30 [I,A] 4G030/AA10; 4G
	*	4G030/GA09; 4G030/GA11; 4G030/GA14; 4G030/GA15; 4G030/GA17; 4G030/PA22; 4J002/CB001; 4J002/DE076;

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4J002/DE086; 4J002/DE096; 4J002/DE106; 4J002/DE126;
4J002/DE146; 4J002/DE156; 4J002/DD006; 4J002/DD006;
4J002/DD006; 4J002/EB047; 4J002/EW007; 4J002/FD016;
4J002/FD017; 4J002/GD01; 4J002/HA08; 5E001/AB03;
5E001/AE02; 5E001/AE03; 5E001/F066; 5E001/AB01;
5E001/AJ02; 5E008/AB03; 5E0082/BB07; 5E0082/EE04;
5E0082/GE10; 5E0082/ME02; 5E0082/ME07; 5E0082/EE04;
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AB The resin is obtained by acetalizing a modified polyvinyl alc. containing ethylene units randomly arranged in the main chain and having ethylene content 1-20 mol% and a degree of saponification ≥ 80 mol%. The resin which is excellent in flexibility, adhesion to resin substrates in a high-humidity atmospheric, heat resistance, thermal decomposability, moisture resistance, and toughness, has a low oxygen permeability and moderate adhesive properties, gives a low-viscosity solution having excellent long-term viscosity stability; and is used for adhesive compns., inks, coating material compns. heat-developable photosensitive materials, solurry compns. for ceramic green sheets, and the ceramic green sheets.

ST modified polyvinyl acetal resin ethylene content sapon degree; acetalization polyvinyl alc aldehyde; adhesive ink heat developable photosensitive mat ceramic green sheet

IT Adhesives

(adhesive compns. containing modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

T Aminoplasts

Epoxy resins, uses

Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(adhesive compns. containing modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(characteristics and manufacture of modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

IT Inks

(inks containing modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

IT 9003-08-1, Melamine resin

RL: TEM (Technical or engineered material use); USES (Uses)
(adhesive compns. containing modified polyvinyl acetal resins with

controlled ethylene content and saponification degree)

IT 9002-89-5, Poly(vinyl alcohol)

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(characteristics and manufacture of modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

IT 99-98-9, N,N-Dimethyl-p-phenylenediamine 2489-05-6, Silver behenate 7446-14-2, Lead sulfate 9003-39-8, Polyvinylpyrrolidone 28279-38-: RL: TEM (Technical or engineered material use); USES (Uses)

(heat-developable photosensitive materials containing modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

IT 75-07-0, Acetaldehyde, processes 123-72-8, n-Butylaldehyde RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PROC (Process)

(reaction products with acid modified poly(vinyl alcs.);

characteristics and manufacture of modified polyvinyl acetal resins with controlled ethylene content and saponification degree)

IT 7647-01-0, Hydrochloric acid, processes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(reaction products with poly(vinyl alc.) and aldehydes; characteristics and manufacture of modified polyvinyl acetal resins with controlled ethylene α

content and saponification degree)

84-74-2, Dibutylphthalate 12047-27-7, Barium titanate, uses RL: TEM (Technical or engineered material use); USES (Uses)

(slurry compns. for ceramic green sheets containing modified polyvinyl acetal resins with controlled ethylene content and saponification degree) THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(7) Toyo Seikan Kaisha Ltd; JP 53-65386 A 1978 CAPLUS

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FULL ESTIMATED COST	132.36	243.84
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL
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